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**An Exploration of the Role of Community Pharmacists in  
Health Promotion in Ireland.**

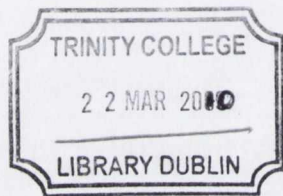
A thesis submitted to The University of Dublin  
for the Degree of Doctor of Philosophy

March 2009

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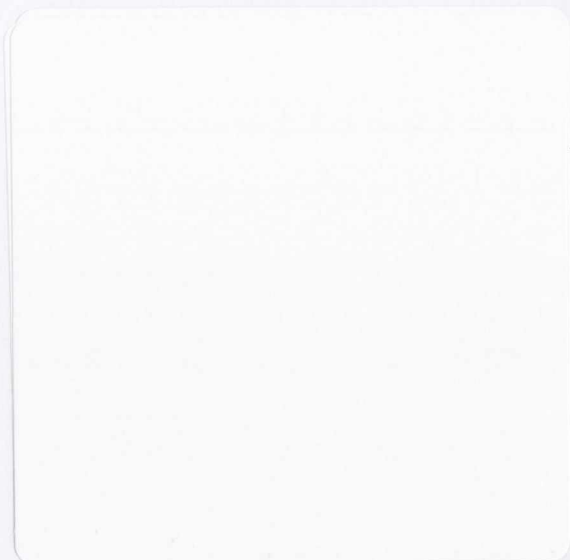
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## **SUMMARY**

### **An Exploration of the Role of Community Pharmacists in Health Promotion in Ireland.**

**Catriona Teresa Bradley**

#### **Aims**

The overall aim of this research was to consider the role of community pharmacists in health promotion in Ireland.

#### **Methods**

A combination of qualitative and quantitative methodologies was used to explore the research questions from a number of different angles. A literature review was carried out to identify work which had already been published in this area. Focus groups were conducted with pharmacists to explore their views on the topic. A survey and a simulated patient study were combined to explore how pharmacy staff responded to patients requesting advice on weight control. A pharmacy-based weight control service was developed, delivered and evaluated in a feasibility study. The opinions of stakeholders were sought through a series of semi-structured interviews with patient representatives and policy makers. A triangulation of results was used to ensure that the research questions were comprehensively addressed.

#### **Results**

This research indicated that most health promotion interventions in community pharmacies were focused on patients who were already ill and initiatives were designed to fit around existing duties. In the surveys, pharmacists indicated that they would ask more questions and provide more lifestyle related advice than was observed in the simulated patient study. In practice, information provided to patients was not tailored to their needs.

Pharmacists, policy makers and patients all acknowledged that community pharmacies were suitable settings for health promotion initiatives, but identified a number of barriers that would need to be addressed before this area could be developed. These included the way in which pharmacists were viewed by the general public and other stakeholders, lack of inter-professional relationships, remuneration structures and lack of pharmacist

involvement in policy making processes. Pharmacists had additional concerns about time, staffing levels, training and inconsistencies within the profession. Policy makers and patient representatives suggested that the commercial nature of the pharmacy environment also acted as a barrier, as did the lack of research within pharmacy and the limited interaction between pharmacists and patients. Despite these barriers, the feasibility study demonstrated that a weight control programme could be successfully developed, implemented and evaluated in community pharmacy to achieve significant reduction in BMI and waist circumference amongst participants.

## **Conclusions**

This research found that pharmacy-based health promotion in Ireland was uncoordinated and sporadic. Pharmacists, patients and policy makers all recognised that community pharmacy could be a valuable setting for health promotion initiatives but did not have any clear ideas about how this could be achieved. The barriers which were identified in this research were complexly interwoven and acted at a number of levels. Addressing any one of the barriers in isolation would be unlikely to result in any significant development of health promotion within community pharmacies in Ireland. Instead, a coordinated approach which simultaneously considers a range of issues and which is tailored to the Irish setting is needed.

This was the first study to use a multi-faceted approach to explore the role of community pharmacists in health promotion in Ireland, and provides a solid foundation for future work.

## **Abbreviations**

BMI	Body Mass Index
GMS	General Medical Service
HSE	Health Service Executive
ICCPE	Irish Centre for Continuing Pharmaceutical Education
IMB	Irish Medicines Board
IPHA	Irish Pharmacy Healthcare Association
IPU	Irish Pharmacy Union
MCA	Medicine Counter Assistant
NRT	Nicotine Replacement Therapy
OTC	Over the Counter
PCT	Primary Care Trust
POM	Prescription only medicine
PSI	Pharmaceutical Society of Ireland
RPSGB	Royal Pharmaceutical Society of Great Britain
UK	United Kingdom of Great Britain and Northern Ireland



## **Acknowledgements**

I would like to thank the following people for their support during the course of my studies:

- My supervisor, Dr. Martin Henman, for his guidance and advice and for the many interesting discussions over coffee
- Boots, for providing me with the opportunity to undertake this research and providing funding for the registration fees
- The participants in each of the studies: the pharmacists who attended the focus groups, the pharmacy staff who participated in the simulated patient study, the stakeholders who were interviewed and the participants in the feasibility study
- Those who assisted with each of the studies: the pharmacists and staff in Boots, Liffey Valley, particularly Elaine Frawley and Caroline McGrath; all who contributed to the feasibility study, particularly Irene Cunnigham, Yvonne Ryan, Agnes McCabe, Brian Dooley, Ruth Devery and the staff of Sanovitae gym; Helen Byrne for her assistance with the survey and simulated patient study; Dr. Liam Greenslade and Ben Meehan for their support with the focus group study and semi-structured interviews; those who facilitated in the focus groups, acted as simulated patients, reviewed instruments and proof read
- The staff and postgraduate students in the School of Pharmacy and Pharmaceutical Sciences, Trinity College Dublin
- My colleagues in Healthcare Learning and Development in Boots, particularly my managers, Raminder Sihota and Jane Blackburn and the Teacher Practitioner Team
- My colleagues in Boots, Ireland, particularly Mary Rose Burke, Rhys Iley, Richard Bradley, Mairead O'Grady and Anne Teresa Morgan
- The many people who have taken time to discuss my work and share their ideas with me over the past four years
- My extended family and friends, who have been patiently waiting for me to finish
- My parents, Bill and Helen, and my sisters, Breda and Helen, who have supported me wholeheartedly in everything I have done
- My husband, Geoff, who's simply the best!

*For Kevin, our guiding star*

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# **1 Introduction**

This thesis explores the role of community pharmacists in health promotion in Ireland. This chapter clarifies what is meant by the term health promotion and provides a background to community pharmacy in Ireland.

## **1.1 Health Promotion**

Health promotion has been defined as

*“the process of enabling people to increase control over, and to improve, their health” [1].*

This was derived from a concept of health as

*“The extent to which an individual or group is able on the one hand to realise aspirations and satisfy needs; and on the other hand to change or cope with the environment. Health is therefore seen as a resource for everyday life, not the objective of living; it is a positive concept emphasizing social and personal resources as well as physical capacities” [2].*

The Ottawa Charter [1] set out five strategies for developing health promotion: building healthy public policy; creating supportive environments; strengthening community action; developing personal skills; and reorienting health services. The Jakarta Declaration affirmed that these strategies were essential for a successful health promotion approach [3]. This highlighted that health promotion involves more than disease prevention and is not just the responsibility of the health sector. Instead health promotion is a way of trying to improve people’s health using a variety of strategies, which could range from the individual through to the national and global.

It is generally accepted that health promotion comprises of two components; health education and healthy public policy [4-6]. Without appropriate policy, health education will, in many instances, be unable to influence healthy choices. On the other hand, without health education, it will frequently be impossible to develop and implement healthy public policy. It is therefore essential that both components are considered when developing health promotion initiatives.

The terms health education and health promotion are often used interchangeably, but health education is only one facet of health promotion [7]. Health education has been defined as *“any planned activity designed to achieve health- or illness- related learning”* [5]. Effective health education may produce many effects: it can result in changes in



knowledge and understanding or ways of thinking; it may influence or clarify values; it can facilitate the acquisition of skills; it may effect changes in behaviour or lifestyle [8]. Health promotion is broader in aim because it recognises that simple knowledge rarely elicits a change in behaviour and recognises that individuals wishing to adopt a healthy lifestyle may be prevented from doing so by environmental and socio-economic factors which are often beyond their control [9].

Healthy public policy puts health on the agenda of policy makers in all sectors and at all levels, directing them to be aware of the health consequences of their decisions and to accept their responsibilities for health [1]. It combines diverse but complementary approaches including legislation, fiscal measures, taxation and organisational change and, through coordinated action, leads to health, income and social policies that foster greater equity.

Internationally, over two decades of developmental work and research has been conducted in the area of pharmacy based health promotion [10-12]. Community pharmacies have been proposed as convenient settings for health promotion due to their widespread location, extended opening hours, ease of access and the availability of qualified healthcare professionals [13-15]. Many studies have been conducted across Europe, America, Africa and Australia which have described pharmacist involvement in a diverse range of areas such as smoking cessation [16-22], screening [23-28] emergency hormonal contraception [22, 29, 30], asthma [27, 31, 32], diabetes [33, 34], women's health [35, 36], weight management [37] as well as in more general areas of health promotion [15, 38-52]. A review of health promotion across Europe in 2000 demonstrated how national professional polices had strengthened the role of community pharmacy in public health and health promotion in Europe [53].

In contrast, pharmacy based health promotion has been largely unexplored in the Republic of Ireland (Ireland). There is anecdotal evidence of health promotion activities, but the extent or nature of this involvement has not been formally studied. The research in this thesis seeks to address this through an exploration of pharmacy based health promotion in the Irish context. In order to contextualize the findings of the research, a history of the Irish Health Service and Irish pharmacy, particularly in the area of health promotion, is outlined here. Weight control is specifically considered throughout this thesis, and so an overview of government efforts to combat the issue of obesity is also provided.



## 1.2 A History of the Irish Health Service

Prior to 1970, health services were poorly organised and developed in Ireland [54]. The underlying structural problem was attributed to a lack of coordination between hospital authorities and the absence of planned organisation of service [55]. In the 1960s and 1970s the emphasis shifted to rationalisation and the provision of fewer and larger hospitals with smaller hospitals being closed. The Health Act 1970 introduced radical changes to the structure of the health service, resulting in regionalisation of health functions. Eight local Health Boards were established for the administration of health services and new rules were introduced for eligibility for health services.

Prior to this, doctors had dispensed medication directly to patients under the dispensary scheme which had been established in 1851 [56]. This service was abolished in 1972 and replaced with the General Medical Service (GMS) Scheme. Eligibility for this scheme was based on income, and “*eligible persons*” were entitled to GP and pharmacy services. Under this scheme medicines were dispensed by community pharmacists who held a contract with the Health Board. Doctors and pharmacists operating under the scheme were not employees of the Health Board, but operated as independent contractors, providing a mix of public and private services. Other schemes were also introduced at this time, including the Drug Refund scheme which compensated private patients for drug expenditure above a specified amount each month and the Long Term Illness Scheme (LTI) which met the full cost of drugs for people with one of a range of specified diseases, regardless of income [57]. Payments to pharmacist were administered by the General Medical (Services Payments) Board [58].

Over the next thirty years there was an increasing recognition by government that healthcare policy was focussed on curative measures with an emphasis on the development of an acute general hospital system and the use of high technology medicine. A number of policies and strategies were published regarding the structure of the Health Service including *Health, the Wider Dimensions* [59] and *Shaping a Healthier Future : A Strategy for Effective Healthcare in the 1990s* [60]. These policies recognised that the wider aspects of health had been largely neglected and they re-orientated policy, resulting in a greater emphasis on health promotion [61]. *Shaping a Healthier Future* was the first comprehensive national strategy to be published [60] and proposed the restructuring of the health services.

In 2001 Minister Micheal Martin launched the New Health Strategy "*Quality and Fairness: a Health System for You*" which set out key objectives for the health system up to 2010 [62, 63]. It made provisions for the "*the largest concentrated expansion in services in the history of the Irish health system*" and proposed major reform to the health service and the Department of Health and Children. In particular it set out a new direction for primary care as the central focus of the delivery of health and personal social services in Ireland. This promoted a team-based approach to service provision in order to build capacity in primary care and contribute to sustainable health and social development. It defined the primary care team as consisting of GPs, nurses/midwives, health care assistants, home helps, physiotherapists, occupational therapists, social workers and administrative personnel. It was envisaged that the primary care teams would be located in single locations, where possible, to improve accessibility and that individuals would be encouraged to enrol with a primary care team and with an individual doctor within the team. Primary care networks, including professionals such as speech and language therapists, community pharmacists, dieticians, community welfare officers, dentists, chiropodists and psychologists would also be established. These networks would provide services to their own patients, who would also be attending one of the primary care teams.

In January 2005, just before the research presented in this thesis was commenced, the Health Service Executive (HSE) took over responsibility for the management and delivery of health services, replacing the regional Health Boards, the Eastern Regional Health Authority and a number of other different agencies and organisations. It was planned that key areas of focus for the Health Service Reform Programme in 2006 would be the restructuring of the Department of Health and Children and the establishment of the Health Information and Quality Authority (HIQA) [64]. Therefore it was anticipated that there would be significant changes in the health service during the lifetime of this research.

Ireland has never provided its citizens with universal access to health care which is free at the point of delivery. Instead free healthcare has been, and still is, provided to those on low incomes, with the majority of the population paying privately. Whilst a significant proportion of the population have private health insurance, insurance providers generally only provide cover for secondary care such as hospital stays and consultant fees, and there are very few provisions made for primary care. The unique structure of the Irish health service must be considered when reviewing policies and practices from other countries. Neither the American model of funding pharmacy services through insurance providers nor



the British model of funding them through the National Health Service can be superimposed on the Irish system. If health promotion is to be developed in the Irish setting, solutions must be found which are feasible within the current model of healthcare provision.

### **1.3 Health Promotion in Ireland**

In 1975 the Health Education Bureau was established [65] to advise the Minister for Health on the aspects of health education which should have priority at national level and to devise and implement programmes of health education at national and local level. These programmes were to be carried out with the co-operation of the statutory and voluntary bodies engaged in health education. Initially the Bureau was engaged in topic-orientated campaigns such as anti-smoking campaigns and drugs and alcohol campaigns, but in 1982 adopted "*a life-cycle model*", concentrating on topics such as childhood immunisation and women's health [66]. In 1987, a report entitled *Promoting Health through Public Policy* [9] recommended that the "*remit and scope of the Health Education Bureau be broadened to deal with a more comprehensive definition of health education*". This resulted in the abolition of the Bureau and the establishment of the Health Promotion Unit in the Department of Health and Children. This Unit had dual remit; to advise on and assist in the development of policy and to develop and implement campaigns across a wide range of subjects in a variety of settings. This signalled a departure from the health education approach of Health Education Bureau and a movement towards a more comprehensive approach to health promotion, as advocated in the Ottawa Charter [1].

*Shaping a Healthier Future; A Strategy for Effective Healthcare in the 1990s* was Ireland's first Health Strategy and set about reshaping the health service to ensure that the focus of work of all health policy makers and providers was improving peoples health and quality of life. This strategy acknowledged the important role of health promotion and paved the way for the first Health promotion strategy *Making the Healthier Choice the Easier Choice* in 1995 [67]. This five year strategy established the role of health promotion in pursuing health and social gain in Ireland and proposed a strategic approach to tackling lifestyle factors which contributed to premature illness and death in Ireland. The strategy recognised the need to move away from a "topic-based" approach.

During the lifetime of the first health promotion strategy, a number of allied strategies were published, covering issues as diverse as workplace health (*Health Promotion in the*



*Workplace: healthy bodies – healthy work*) [68], cardiovascular health (*Building Healthier Hearts*)[69] youth at risk (*Youth as a Resource: promoting the health of young people at risk*) [70], healthy aging (*Adding Years to life & life to years...A health promotion strategy for older people*) [71], women's health (*A Plan for Women's Health*) [70], suicide (*Report of the National Task Force on Suicide*) [72] and alcohol (*A National Alcohol Policy*) [73]. Health promotion functions were devolved to the Health Boards with a statutory obligation on the boards to *develop and implement health promotion programmes, having regard to the needs of people residing in its functional area and the policies and objectives of the Minister in relation to health promotion generally* [74]. As a result, Health Promotion Departments led by senior managers and with dedicated budgets were established in all health boards.

Also during this period, the Department of Health and Children commissioned the first nationally representative surveys on lifestyle practices. The Survey of Lifestyle, Attitudes and Nutrition (SLÁN) was undertaken to produce baseline information of health and lifestyle related behaviours in the Irish adult population and the Health Behaviour in School Aged Children (HBSC) study was undertaken to provide the same information about young people [75]. Both surveys provided information on general health, smoking, alcohol, nutrition, exercise and accidents. These were conducted by the Health Promotion Department in NUI Galway, the establishment of which was supported by the Department of Health and Children in order to conduct health promotion research in Ireland [61, 76].

In the second National Health Promotion Strategy 2000 - 2005 [77], significant legislative measures were introduced to combat the problems associated with cigarette smoke through the Workplace Smoking Ban in 2004 [78], which was the first of its kind in Europe. The second SLÁN and HBSC studies were conducted in 2002 [79] and comparisons with the same studies in 1998 allowed for identification of trends. For example, from 1998 to 2002 there was a 4% reduction in the percentage of people who reported smoking and a 5% increase in the percentage of people who reported being overweight.

The government invested significantly in health promotion over the life-time of the two Health Promotion strategies. By 2004 there were approximately 307 staff employed in health promotion across the boards, including 47 senior health promotion officers, 85 health promotion officers and 46 dieticians [80]. The government allocated a further €57 million to the implementation of the Cardiovascular Health Strategy, which resulted in an

additional 139 posts in health promotion across the boards, including 26 smoking cessation officers, 36 community dieticians, 30 physical activity posts and 22 health promotion officers. In a review of the second Health Promotion Strategy in 2004, McKenna et al. observed that partnership and inter-sectoral working had become integral to the health promotion function and there was increased engagement with statutory and non-statutory agencies and community and social partners [80]. However, despite significant investments, there was little engagement with community pharmacists. There was no collaboration between the Regional Health Promotion Departments and community pharmacists, no research was conducted in the area, despite the establishment of the Health Promotion Department in Galway, and no funding was allocated to community pharmacists.

At the time of commencing this research in 2005 it was unclear if there would be another Health Promotion Strategy and it was not known how the Health Service Reform programme would affect the Health Promotion Unit and the Regional Health Promotion Departments.

#### **1.4 A History of Pharmacy in Ireland**

Pharmacies and pharmacy services were not seen as central to the public health needs until the introduction of State sponsored health services under the 1970 Health Act [57]. Before 1970, dispensing and compounding services in Ireland were mainly a matter of private medicine as the only services provided by the State were offered by doctors who carried out their own compounding and dispensing [56, 81]. This changed with the establishment of the General Medical Services (GMS) scheme in 1972 [58], under which pharmacists dispensed medicines and devices from their pharmacies.

Until 1996 Ireland did not have any restriction on the establishment of new pharmacies in terms of geographic location, ownership type or number of outlets owned by a single entity. The only restriction was that which resulted from article 2.2 of the European Council Directive 85/433/EEC [82], known as the derogation rule. Under this article, any EU/EEA-qualified pharmacists were not permitted to establish a new pharmacy or to own, manage or supervise a pharmacy which was less than three years old. In 1996 an agreement was reached between the Department of Health and the Irish Pharmacy Union (the representative union for pharmacy employers and employees) which included a new contract for provision of all community pharmacy services [83] and agreement of a formal



statutory procedure for granting and retention of pharmacy contracts [84]. The new contract was intended to promote a quality service to the patient and imposed significant obligations on community pharmacists in relation to professional practice and the care of patients in the community drugs schemes. Under clause 9 of the contract, pharmacists were required to undertake a comprehensive review of patient's medicine therapy when dispensing prescriptions. This clause provided an emphasis on professional knowledge and expertise and it was agreed that a "*programme of continuing education for pharmacists*" would be initiated. This resulted in the establishment of the Irish Centre for Continuing Pharmaceutical Education (ICCPE) in 1998, the strategic direction of which was steered by a Management Committee comprising 12 nominated persons. The new contract also resulted in new reimbursement structures including a fee for phased dispensing, a fee for not dispensing items which the pharmacists in his/her professional judgment considered not being in the patient's interest and an overall fee increase.

The objectives of the 1996 Regulations provided a system for granting pharmacy contracts in accordance with public health criteria. In particular, the regulations placed restrictions on awarding new contracts through the requirement to show definite public health need for the proposed pharmacy services. These restrictions were intended to promote the spread of pharmacy services, with the enforcement of specific distance requirements between pharmacies to prevent further concentration of pharmacies in cities and towns that already had adequate supply of pharmacies. It was also intended that existing pharmacies could invest in the development of professional services without fear of competition by new openings [85].

Whilst the Regulations did prevent new pharmacies from clustering in areas with existing services, they did not produce the extent of expansion into rural areas that might have been expected. More significantly, the capital value of contracted pharmacies increased greatly under the Regulations, giving a commodity value to the contract and resulting in a considerable increase in the value of contracted businesses. In 2001, The Organisation for Economic Cooperation and Development (OECD) published a report which raised several concerns in relation to community pharmacy, particularly relating to the considerable entry barriers to pharmacy ownership [86]. Consequently, the Minister for Health and Children established a Pharmacy Review Group to examine the pharmacy issues raised in the report. However, before this group reported on its findings, the Minister for Health and Children sought legal advice from the Attorney General's Office on the legal basis of the 1996



Regulations, due to ongoing legal challenges to the Regulations [87]. This resulted in a revocation of the Regulations in February 2002 removing all restrictions on pharmacy openings (although derogation was still in place) [88]. This deregulation removed the requirement to consider public health requirements for new pharmacy openings and restored commercial competition between pharmacies.

The Pharmacy Review Group subsequently published their report and made a total of 20 recommendations, all relating to how contracts should be awarded [89]. They advised that a new pharmacy act was required, and that until this was introduced the use of the EU derogation should continue and that the Minister for Health and Children should take interim measures to restrict the number of pharmacy contracts that may be granted to a single entity operating in any area. No such measures were put in place.

Around the time of de-regulation, new arrangements for development of primary care teams and networks were set out in the New Health Strategy in 2001, *Quality and Fairness: a Health System for You* [62]. In the strategy pharmacists were defined as being part of the primary care network, rather than the team and this elicited a mixed response from the profession. The IPU welcomed the fact that pharmacists were not considered part of the primary care team and felt that community pharmacies would “*best serve their patients at their present location*” [90]. In contrast, representatives of the Society claimed that pharmacy had been “*relegated*” and that “*pharmacy’s unique position within the primary care structure had been overlooked*” [91].

In June 2005, the Government approved the introduction of new pharmacy legislation stating that it would “*increase competition and raise standards in the pharmacy sector*” [92]. The legislation was to be introduced in two parts, and would take the form of a priority short bill followed by a more detailed pharmacy bill. The priority bill would remove the concept of derogation and would introduce fitness to practice provisions which would strengthen the powers of the Pharmaceutical Society of Ireland to ensure standards were maintained in the pharmacy sector and that practising pharmacists had linguistic and forensic competence to practice (Table 1-1). Ironically, it was proposed that this new legislation would be developed at a time when the role of Chief Pharmacist to the government lay vacant [93], as the position was not filled following the retirement of the previous Chief pharmacist in April 2005. The Primary Care II division of the Department of Health was responsible for “rolling out” the provisions of the Pharmacy Act [94].

Therefore, by 2005, Ireland had the most liberal laws regarding opening of pharmacies in Europe and government initiatives relating to pharmacy were focused on increasing competition within the sector. It was evident that significant changes were imminent due to the introduction of a new Pharmacy Act, but it was not known the extent to which this new legislation would change the way pharmacy was practiced in Ireland.

**Priority Legislation will include:**

- The removal of the prohibition - the 'derogation' - on non-Irish graduates being supervising pharmacists in pharmacies less than 3 years old
- Fitness to practice provisions, to ensure the highest standards from pharmacists and to safeguard the safe and effective delivery of pharmaceutical services to all citizens of the State
- A stronger statutory basis for the Pharmaceutical Society of Ireland, to include:
  - Governance of the PSI, including wider non-pharmacist representation on its Council
  - Updating regulations for the registration of pharmacists, including non-EU and EEA graduates
  - Matters concerning the delivery of community pharmaceutical services, such as linguistic and forensic competence and experience for supervisory pharmacists

**The Second Pharmacy Bill will legislate for pharmacy practice and the delivery of pharmaceutical services and will address, among other things, the following:**

- Regulation of Pharmacy and Pharmacy Services
- Definition of pharmacy services
- Definition of a community pharmacy
- Provision for inspection of pharmacies (including fees)
- Provision for regulation of pharmacies in respect of physical conditions, standards, record keeping, suspension/revocation of registration and promotional activities
- General provisions on community pharmacy contracts for services
- Remaining recommendations of the Pharmacy Review Group

**Table 1-1 Summary of the proposed Pharmacy legislation**

## **1.5 Pharmacy and Health Promotion in Ireland**

In 1977 a Department of Health/Pharmacists Joint Discussion Group was set up to examine the future role and responsibility of pharmacists [95]. Its report was published in 1978 and recommended that pharmacy should be represented on the Health Education Bureau. In relation to health education, the Group stated that the community pharmacist had a role of considerable significance in educating the public regarding problems associated with the



use/misuse of medicines and that the pharmacy was the ideally situated and logical centre for the display and distribution of health promotion material. However, the Group's recommendations were not adopted. Despite this, there was some subsequent collaboration between the Health Education Bureau and pharmacists [96, 97]. A team of pharmacists were trained by the Bureau to give talks on drug abuse and other relevant topics to target groups, including senior school children. The task of making arrangements for such talks was delegated to the Health Boards. After considerable initial enthusiasm, the programme waned due mainly to lack of funding [98].

At the beginning of 1989 the IPU launched its first national "*Talking to your pharmacist is good for your health*" campaign. This was inspired by the National Pharmaceutical Association (NPA) campaign in the UK - "*Ask your Pharmacist – You'll be taking Good Advice*" which was established in 1982. The IPU President at the time described the Irish campaign as the "*most important public exercise ever undertaken here for the purpose of promoting the professionalism of the pharmacist*" [95]. It involved posters and leaflets for distribution via pharmacies and a supporting press and radio campaign. In subsequent years, a number of national campaigns were organised in conjunction with patient groups including those dealing with asthma (with the Asthma Society of Ireland) [99], vitamin/mineral supplements, arthritis (with the Arthritis Federation of Ireland), correct paracetamol usage, coughs/colds, hay fever, lice infestation, sunscreens, sexual health and awareness of illegal drugs [95].

Despite pharmacist involvement in health promotion, no evaluations were conducted to assess the impact of such initiatives. Studies which were commissioned by the government generally ignored the role of pharmacists in healthcare. For example, in the 1989 SLÁN survey, when respondents were asked to identify their main source of health information pharmacists were not listed amongst the response options. This was despite the fact that the study found that 25.7% of males and 37.7% of females took regular prescribed medication, thus suggesting that they would have monthly contact with a pharmacist. Consequently, it is not known to what extent pharmacists are identified as a source of health information by the general public.

In 1990 the Pharmaceutical Society established a Commission of Inquiry into Pharmacy to examine the structure of the pharmacy profession in Ireland and to recommend any changes necessary to achieve their full potential [98]. In its report the Commission



specifically addressed the issue of health promotion in pharmacies. It stated that pharmacy premises were “*an obvious and logical location for the display and dissemination of health promotion material issued by organisations such as the Health Promotion Unit of the Department of Health, the Cancer Society, the Heart Foundation and the Irish Dental Health Foundation*”. The Commission recommended that more attention be given to the organisational aspects of a well-structured national health education policy. They commented that existing initiatives appeared to be “*uncoordinated and spasmodic*” and suggested that the community pharmacy network could be better utilised. In particular they stressed the importance of pharmacists making a clear distinction between health promotion literature and blatant commercial or advertising material. They suggested that failure to do so created difficulties for patients in distinguishing between the information provided in the different types of material. It was proposed that the Pharmaceutical Society should establish direct contact with the Health Promotion Unit of the Department of Health and Children, to propose the restoration of drug abuse education on an organised national basis. It was also suggested that the Society should take whatever initiatives were required to achieve the establishment of local committees, representative of health professionals, teachers, the Gardai (police) etc, in order to coordinate drug abuse identification and prevention at local level. The Commission suggested that the layout of pharmacies should be improved to facilitate patients by the provision of proper consultation areas and the display and distribution of health information. In terms of practice research, it was noted that research into pharmacy practice up to that point was carried out on an ad hoc basis, and was entirely dependent on funding allied to specific projects. It was recommended that the College of Pharmacy Practice (which was established in 1990 to develop and promote the practice of pharmacy) and the School of Pharmacy enter into a collaborative venture to seek support and funding for practice research at a more sustained level. It was also suggested that a permanent Practice Research Unit should be established. Therefore it is evident that the commission was cognisant of the importance of health promotion and practice research and recommendations were made to develop the pharmacist role in this regard. However the findings of the report were not acted upon and many of the observations made regarding health promotion remain valid to this day.

The Methadone Protocol, which was established in 1998, is an example of pharmacist involvement in public health interventions which were supported by policy, training, finance and inter-professional collaboration, albeit that the role of the pharmacist was

largely confined to one of supply. This represented an opportunity for pharmacist involvement in an inter-professional, policy-driven, harm-reduction programme which aimed to transfer the care of the increasing number of opiate users from central treatment centres to primary care [100, 101]. Patients registered with a community pharmacy from which they received methadone in daily or weekly instalments. Grants were provided to assist in the redesign of pharmacies in order to create a private section where supervised consumption of methadone could take place. Three pharmacist coordinators were appointed within the Eastern Region and training was provided to pharmacists, some of which was provided in collaboration with the ICCPE. A review of the methadone treatment protocol was carried out in 2003 [102]. By then 295 pharmacists were involved, allowing for a large number of opiate dependent persons to be treated in their own local area. However there was still a problem with recruitment of pharmacists outside the Eastern Region, and this was thought to be due to the lack of liaison pharmacist positions outside the Eastern Region, highlighting the importance of coordination support. This represents the only formal, reimbursed involvement in public health initiatives for pharmacists.

Since 2000 ad-hoc health promotion campaigns have been sporadically delivered through community pharmacies. Most frequently these have been organised by pharmaceutical companies and have involved the distribution of leaflets and the display of posters relating to particular products. Examples include campaigns on topics such as head lice [103, 104], folic acid supplementation [105] vaccinations [106] erectile dysfunction [107, 108] and smoking cessation [109, 110]. In such cases materials were specifically developed for distribution through pharmacies, with merchandising for windows often used to support campaigns.

Some non-commercial, non-governmental bodies have also supported health education initiatives within community pharmacies. Patient representative groups such as the Diabetes Federation of Ireland [111-114], the Irish Heart Foundation [115], the Irish Cancer Society [116] and the Irish Arthritis Foundation [117] have organised campaigns in community pharmacies. These have normally involved the distribution of leaflets or materials which supported the organisations' aims. In contrast, most campaigns which have been organised by government bodies or their agencies have not utilised community pharmacies for the dissemination of materials. Examples included a National Drug Awareness Campaign [118], National Breastfeeding campaign [119], Sexuality Awareness



Campaign [120] and a National Healthy Eating Campaign [121]. Materials for such campaigns were distributed through a range of settings including health boards, supermarkets, sports clubs, libraries and hospitals but rarely, if ever, through pharmacies.

The IPU has been the only organisation to develop pharmacy specific health promotion campaigns which did not have the simultaneous aim of promoting the sales of a particular product or increasing the profile of a patient organisation. The “*Ask about your medicines*” campaign was run in approximately 100 pharmacies in 2003 [122] and the “*Quit for Life*” campaign was organised in 2004 to coincide with the introduction of the national smoking ban. Posters, leaflets and badges were provided to pharmacies to support them in the campaigns [119]. In 2005 the IPU announced a programme of health promotion activities for the year [123] which involved four campaigns; Ask About Your Medicines (March 05), Ask Your Pharmacist about Sexual Health (June 2005), Drugs Awareness Campaign (September 2005) and Men’s Health Campaign (November 2005).

Although most of these campaigns have been restricted to dissemination of information, there has been some evidence of more comprehensive health promotion interventions which have been facilitated through community pharmacies. A joint DUMP (Dispose of Unused Medicines) initiative between the IPU and the South Western Area Health Board (SWAHB) was piloted in six pharmacies for six weeks [124] and was subsequently extended to over 150 pharmacies within that health board [125]. DUMP campaigns were also organised in the East Coast Area and the Western Area [126]. A patient safety initiative was established in the North Eastern Health Board region where pharmacists reviewed INR control in warfarin patients [119]. With the exception of a review of the DUMP campaign in the Western Area [126], the effectiveness of these interventions does not appear to have been reported.

Some provisions have been made for the training of pharmacists in the areas of health promotion by the ICCPE including courses on a range of topics such as obesity, women’s health, alcohol-related problems and general health promotion [127-131]. However, the ICCPE’s role was, and still is, confined to one of training and it did not have any remit in the area of evaluation. Therefore the effect of these training interventions has never been assessed and it is not known the extent to which pharmacists have utilised the skills learnt, or the effect, if any, that the training has had on practice. Additionally, ICCPE courses are



only provided to pharmacists and no provisions are made for the training of non-pharmacist staff.

In addition to ICCPE courses, information about health promotion topics have been periodically published by the three pharmacy journals in Ireland. Smoking cessation is the topic most frequently covered [132-140]. Other subjects which have been considered include obesity [141-144], sun-protection [145-147] drug abuse [148, 149], managing self-medication [150], head lice [103], medicines and driving [151] and health screening [152]. In general these articles concentrated on providing factual information on topics in general, rather than considering how such issues should be addressed in the community pharmacy in particular.

Pharmacy organisations have repeatedly expressed their members' interest in developing their role in health promotion. In 2000, the Irish Pharmaceutical Healthcare Association (IPHA) President stated that pharmacists were "*an underutilised resource in primary healthcare*" and that there was a role for greater provision of health-related information [153]. Pharmacy representatives made efforts to raise awareness at policy making level, as evidenced by a submission to the Oireachtas Committee on Health and Children [154]. In this submission, the president of the IPU highlighted the accessibility and informality of the pharmacy setting and called for the development of structured health promotion services.

The PSI President in 2002 identified some issues which she felt were preventing further pharmacist involvement in health promotion [155]. She felt that the nature of pharmacy practice was often a "*solitary, isolated role which (made) rapid change more difficult to manage*". She stated that the profession's greatest asset with respect to patient care was its position in the healthcare system – "*physically, in terms of our high street location, professionally, in that we command a unique and pivotal position in the overall healthcare system, and metaphorically in that we are perceived to be freely available on an anonymous basis to the public at large*". However she felt that the profession had failed to identify this benefit to patient care to either policy makers or other healthcare professions.

Despite the assertions that community pharmacies offered unrivalled opportunities for informal education in aspects of health [156], others have suggested that the concept of community pharmacy being a health promotion centre was implemented more in word than

in action [157]. There have been calls for pharmacists and pharmacy staff to “*get out from behind the counter*” in order to increase interaction with customers [158]. In 1999 the IPU president commented that pharmacists’ roles were primarily reactive and suggested that pharmacists needed to “*become more pro-active and to participate in community healthcare initiatives*” [159].

In summary, at the point of commencing this research there was evidence that community pharmacists were already involved in health promotion activities to a certain extent. However this involvement appeared to be relatively unstructured, with most activity focussing on the dissemination of information. Despite indications from pharmacy leaders that the profession would like to increase their involvement in this area, the assertion by the Commission for Pharmacy in 1990 [98] that efforts appeared to be “*uncoordinated and spasmodic*” was still valid over fifteen years later.

## **1.6 Pharmacy Practice Research in Ireland**

Despite the evidence that health promotion activities have been undertaken by community pharmacists, very little research has been conducted to evaluate any activities or to understand pharmacists’ attitudes to the area. A review of literature between 1999 and 2005 yielded a small number of papers relating to pharmacy based health promotion in Ireland.

Most of the research that has been conducted in Ireland has focused on the use of survey questionnaires [160-170]. This supports statements by Smith that social survey methodology is the most widely used approach by pharmacy practice researchers [171]. In 1988, Hurley conducted a consumer survey (n=198) which indicated that the majority of people used pharmacies to get prescription medication (61.7%) or OTC medication (30.6%) with only 4% using them to request advice on health matters. Yet over half of respondents indicated that they felt that pharmacists were well qualified to advise on health matters [172]. Pharmacist surveys relating to the methadone dispensing service in community pharmacies found that pharmacists were in a prime position to counsel patients on general health and well-being and safer sex methods [164, 165, 169]. Bourke conducted a survey to assess attitudes amongst pharmacists to the concept of pharmacy-based needle exchange and demonstrated that pharmacists were “cautious” about the idea of providing such a service [173]. McEntee surveyed 310 pharmacists in Ireland and found that the majority (92%) felt that there was a role for pharmacists in assisting in



weight reduction but identified barriers such as lack of time (55%), lack of interest by the public (40%) and cost (19%) [167]. Lane et al. used patient surveys to assess satisfaction with pharmaceutical services in pharmacies and found that patient satisfaction ratings were higher in independent pharmacist than in chain pharmacies [163]. This study did not relate to health promotion activities per se, but did assess issues such as waiting time to talk with a pharmacist, explanatory skills and personal skills. A survey by Vivero and Henman [168] assessed the attitudes of pharmacists towards pharmaceutical care and the resources available and barriers to practice. Impediments to the provision of pharmaceutical care included access to patient medical information, inadequate consultation areas and the need for more pharmacy staff to free up pharmacists' time to be able to provide pharmaceutical care routinely. Although the study did not refer to health promotion specifically, the impediments identified may apply to the provision of health promotion services.

In a departure from using survey approaches, Fisher et al. [174, 175] used a non-participative observation study to investigate counselling provided within Irish pharmacies. The authors found that just over one-fifth of non-prescribed medicines were sold with advice and that counselling was more frequent with sales made by pharmacists than by other staff. Variations in dispensing rates were found between the days of the week and between different parts of the day and these were considered to be related to pharmacies' opening hours, physicians' visiting times and consumers shopping patterns.

Self reporting techniques were used by O'Connor et al. to investigate the inquiries received and addressed by a methadone liaison pharmacist in the first year of operation of a community pharmacy-based methadone treatment scheme [176]. This study concluded that the liaison service played a significant role in the provision of support and information for community pharmacists who were participating in the methadone scheme.

Some intervention studies have been conducted to evaluate the effect of health promotion interventions. Deeney et al. described a cardiovascular risk factor assessment which was carried out in community pharmacy [177]. Decreases in blood pressure, weight and body mass index were observed following a three week programme which involved the provision of lifestyle advice to participants. However, only seven participants were included in the study and no details of the intervention were provided. Brodie described how glucose monitoring techniques were improved in a group of ten patients following pharmacist intervention [178] and Naddy described an intervention to improve inhaler



technique in a group of thirteen asthmatic patients [179]. A study by O'Driscoll used before and after analysis to examine the impact of community pharmacist intervention on secondary prevention of cardiovascular disease [180]. This study was considerably larger than the studies by Naddy, Brodie and Deeney, using a cohort of 52 patients. The intervention included promoting lifestyle modification, providing blood pressure monitoring and facilitating optimal medication management. A study by Roche described the effect of a single health education intervention on patient understanding of the terms blood pressure, blood glucose and body mass index (BMI) compared to a control group [181]. This was the largest of the studies found, with a total of 196 participants, and was the only study to include a control group. However, a shortcoming of all of these studies was that they were conducted in a single pharmacy and the interventions were facilitated by the primary researcher. A study by McCabe was the only study which involved more than one pharmacy and where the interventions were made by staff members who did not have a vested interest in the study [182]. In this study training in brief intervention skills for smoking cessation was delivered to pharmacists and their staff in four pharmacies. Staff members were given audit forms to record brief interventions made with clients in the pharmacy for two weeks following the training.

It is clear that main approach adopted by Irish researchers to explore the area of health promotion involved surveys or evaluation of small scale studies within pharmacies, with a small number of studies using observation and self-reporting. Most research was underpinned by a positivist approach, with a strong emphasis on quantitative methodologies and analysis of outcomes rather than processes. There was an evident lack of qualitative methodologies and few efforts had been made to understand the barriers and facilitators to developing pharmacy based health promotion initiatives in Ireland.

## **1.7 Weight control**

The prevalence of overweight and obesity has increased rapidly over the past two decades and has been described by WHO as a "*global epidemic*" [183]. In Ireland, the SLÁN studies of 1998 and 2003 indicated that the levels of those who were overweight had increased from 42% in 1998 to 48% in 1998 [75, 79]. This prompted the Minister for Health at the time to establish an Obesity taskforce in 2004 [184], the terms of reference of which were to develop a strategy to halt the rise and reverse the prevalence of obesity.

In 2005 the task force published its report [185] which highlighted the economic, social and health costs associated with obesity and provided recommendations on how the issue could be addressed in Ireland, including preventative and treatment measures. The report stated that treatment programmes which combined physical, dietary and behavioural changes were needed. The Taskforce recommended that a multi-disciplinary primary care team should support an integrated holistic approach to the management of obesity, and that such a team “*should consist of, or have access to, when clinically required, a general practitioner, practice nurse, community dietician, physiotherapist and a qualified exercise specialist*”. No references were made to pharmacists despite a submission from the IPU which proposed that pharmacists should be integrated into the government’s strategy through a number of initiatives, including structured health promotion activities, medication management review initiatives and acting as healthy living ambassadors at community level [186, 187].

Despite the lack of reference to pharmacy in the taskforce report, it has been claimed that community pharmacists have a role to play in tackling the obesity issue [186-194]. To this end, training has been provided by the ICCPE (Irish Centre for Continuing Pharmaceutical Education) on the principles of weight control [131] which provided guidance on the measurement of BMI, waist circumference and waist to hip ratio. Emphasis was placed on the importance of behavioural changes as part of weight loss and it was recommended that Prochaska and DiClemente’s Transtheoretical Model [195] be used by pharmacists to identify the strategies appropriate for patients trying to lose weight. Although the training provided a good overview of the issues associated with weight loss, there was little guidance on the practical implementation of weight-control programmes within pharmacy. Additionally there has been no evaluation of the effect, if any, that this training had on pharmacist behaviours or patient outcomes.

Anecdotal evidence suggests that much pharmacist involvement in the treatment of obesity in Ireland involves the sale of a Very Low Calorie Diets (VLCDs) or other commercial dietary products. However reviews of VLCDs generally suggest that such programmes are not advocated as an effective means of weight loss and should only be administered under medical supervision to individuals who have a BMI greater than  $30 \text{ kgm}^{-2}$  [185, 196, 197]. In Ireland, the supply of such diets through pharmacies has been criticised by nutritionists [198, 199].



At the time of commencing this research it was recommended that further research of weight-control initiatives in pharmacies was urgently needed [12]. Consequently, weight control was specifically explored as a health promotion issue within this research.

## **1.8 Motivation for Conducting this Research**

Prior to the commencement of this research, the primary researcher worked in Boots the Chemist in Ireland. It was clear from internal communications that pharmacists in the business in the United Kingdom (UK) had greater opportunities for involvement in health promotion than their counterparts in the Irish business and it was decided to explore the reasons for this.

From an external perspective the features of community pharmacy appear quite similar in the UK and Ireland. In both, community pharmacies are owned by a mix of independent pharmacists and chains. Shops contain a mix of medicinal and non-medicinal products, and have a mixed customer base, some of whom require prescriptions and some of whom use pharmacies for buying non-medical items such as toiletries. Both private and public prescriptions are dispensed, although the proportion of private dispensing is far greater in Ireland than in the UK. As a result of these similarities the fundamental differences between pharmacy practice in Ireland and the UK are not always apparent. The fact that both countries speak English and are so close geographically, particularly in the case of Northern Ireland, strengthens the illusion that pharmacy practice is the same in both jurisdictions.

However, the fundamental differences in how services are reimbursed and the way in which pharmacy policy is developed make the models of pharmacy practice very different in the UK and Ireland. Therefore research findings from the UK, particularly with regard to issues which affect pharmacy practice, will not necessarily be relevant in Ireland, and other issues which are not significant there may need to be considered here. Boots' expansion into Ireland illustrates this point particularly well. When the company first came to Ireland, over a decade ago, their approach to pharmacy was not modified for the Irish market. The business was led from the UK and initiatives which worked there were applied to the Irish business. As a result the company struggled to establish itself as a pharmacy in Ireland and was largely viewed by the general public as a beauty retailer instead. In recent years there has been an increasing recognition within the company that the Irish pharmacy business is significantly different to that in the UK [200]. It was a



desire by the researcher to more fully understand health promotion in the Irish context and why it was so different from the UK, which prompted this PhD to be undertaken. Consequently, the UK, particularly England, is used as the main comparator throughout this thesis.

## **1.9 Conclusion**

At the time of commencing this research there was considerable change occurring in a range of areas. The HSE had just been established and the Department of Health and Children was about to be restructured. A new Pharmacy Act was imminent and the position of Chief Pharmacist in the Department of Health and Children lay vacant, as it had for the previous 10 months. It was clear that there would be much change within the world of pharmacy in Ireland but it was difficult to predict what effect those changes would have on the profession.

A review of the literature demonstrated that health education and health promotion initiatives were delivered from community pharmacies, albeit in a sporadic, ad-hoc way, and there were calls from pharmacy leaders for a more formal involvement in the area. Whilst there had been considerable investment in Health Promotion within the health service, there had been few, if any, efforts made to engage pharmacists. Whilst some limited research had been conducted, many aspects of pharmacy based health promotion remained unexplored including pharmacist attitudes, facilitators and barriers, feasibility of increased involvement, the nature of patient interactions and the views of stakeholders. Therefore, a more comprehensive exploration of the area was required, and this was achieved through the research presented in this thesis.





## **2 Aim and Objectives**

The aim of this research was to explore the concept of health promotion in community pharmacy in Ireland. In order to achieve this, the following objectives were identified:

- To explore current health promotion practice in community pharmacy
- To understand pharmacists' opinions and attitudes to health promotion
- To elicit the opinions of other stakeholders regarding the role of the pharmacist in health promotion
- To identify facilitators and barriers to delivery of health promotion in pharmacy
- To understand the issues to be considered when developing health promotion interventions within community pharmacy
- To consider weight control as a specific topic for health promotion in the community pharmacy environment

The first part of the paper discusses the general theory of the subject. It is shown that the theory is based on the principle of least action. The second part of the paper discusses the application of the theory to the case of a particle in a magnetic field. It is shown that the theory predicts the existence of a magnetic field. The third part of the paper discusses the application of the theory to the case of a particle in an electric field. It is shown that the theory predicts the existence of an electric field. The fourth part of the paper discusses the application of the theory to the case of a particle in a gravitational field. It is shown that the theory predicts the existence of a gravitational field. The fifth part of the paper discusses the application of the theory to the case of a particle in a quantum field. It is shown that the theory predicts the existence of a quantum field. The sixth part of the paper discusses the application of the theory to the case of a particle in a relativistic field. It is shown that the theory predicts the existence of a relativistic field. The seventh part of the paper discusses the application of the theory to the case of a particle in a non-relativistic field. It is shown that the theory predicts the existence of a non-relativistic field. The eighth part of the paper discusses the application of the theory to the case of a particle in a classical field. It is shown that the theory predicts the existence of a classical field. The ninth part of the paper discusses the application of the theory to the case of a particle in a quantum-mechanical field. It is shown that the theory predicts the existence of a quantum-mechanical field. The tenth part of the paper discusses the application of the theory to the case of a particle in a relativistic-quantum-mechanical field. It is shown that the theory predicts the existence of a relativistic-quantum-mechanical field.



## **3 Research Methods**

### **3.1 Introduction**

Research is a rigorous, systematic inquiry or investigation and its purpose is to validate and/or refine existing knowledge and to generate new knowledge [201]. The concept of a “systematic” approach is critical to the definition of research because it implies careful preparation, planning, organisation and critical evaluation. When developing a framework for research design a number of issues must be considered including the purpose of the research, the philosophical approaches to be used and the most appropriate methods by which to achieve the aims of the research [202].

The purpose of this research was to explore the concept of health promotion in community pharmacy in Ireland. Despite considerable international research, this topic had not been comprehensively considered in the Irish context. Exploratory approaches have been recommended for the research of topics about which relatively little is known in order to generate ideas and hypotheses for future conclusive research efforts [202, 203] and therefore this approach was considered appropriate for this research.

The two most common philosophical approaches to health research are positivist and constructivist approaches [201]. Positivism is a philosophy which proposes that objective knowledge (facts) can be gained from direct experience or observation. It is largely based on quantitative data and is generally “value – free” [202]. Researchers using a positivist approach generally aim to develop universal laws about human and societal behaviour [201]. In contrast to positivism, a constructivist approach (also known as interpretive or naturalistic approach) views the world as a multiplicity of realities where each individual perceives, understands, experiences and makes meaning of that reality in different ways; thus reality is socially constructed [203]. Within a constructivist paradigm, behaviour is considered to be determined by the phenomena of experience, rather than by external, objective and physically described reality [202]. The emphasis is on understanding the ways in which people construct their realities and attempts are made to research what perspectives they hold and how they interpret events that happen. Observations cannot be pure in the sense of excluding the interests and values of individuals, but investigations must employ empathic understanding of those being studied [204]. The overall aim of constructivism is to understand the multiple social constructions of meaning and knowledge and this is supported through the use of qualitative modes of enquiry, such as

interviews and observation, which allow for the development of multiple perspectives [203]. Although health promotion has developed from a mix of positivist disciplines (such as medicine, epidemiology and behavioural psychology) and constructivist disciplines (such as community development and community psychology) it has been proposed that the dominant tenets of health promotion are more consistent with the constructivist underpinnings of postmodernism than the positivist premises of evidence-based healthcare [205]. Given the exploratory nature of the research it was anticipated that a constructivist approach would be provide the most appropriate theoretical framework for the research methods.

As well as considering philosophical approaches, a number of practical considerations were taken into account when selecting the methods to be used in this research. For the duration of the studies the researcher was employed in a full-time capacity. As a result, research was conducted on a part-time basis with work frequently being concentrated into blocks of time. Consequently, flexible designs were required which would facilitate episodic working and which could be fitted around existing workloads. Another significant constraint was the absence of any formal research funding. Approaches were required which would allow the research questions to be adequately addressed within these constraints.

A multi-method approach, underpinned by a pragmatic paradigm, was considered the most appropriate means by which to address these issues. Multi-method designs allow for the incorporation of two or more research methods, each conducted rigorously and complete in itself, in one project. The results from each of the methods can be triangulated to form a comprehensive whole [206]. Pragmatism provides researchers with the freedom to chose the philosophical or methodological approach which works best for the particular research problem in question [202, 204] and can draw from both quantitative and qualitative approaches. This multi-method, pragmatic approach allowed for a number of studies to be conducted independently in order to successfully address the research questions without compromising the quality of the research. Although both quantitative and qualitative approaches were used, there was a greater emphasis on qualitative methods in recognition of the exploratory nature of the research.



Most of the methods used in this research had not been previously used in relation to pharmacy practice in Ireland. Specific details of the methods for each study are outlined in each of the relevant chapters.

## **3.2 Methods used in this Research**

The complete research design consisted of a literature review and a triangulation of four separate studies. Pharmacist opinions regarding pharmacy based health promotion were explored through a series of focus groups (Chapter 4). The patient experience was investigated by using both a pharmacist survey and a simulated patient study (Chapter 5). The feasibility of a pharmacy based weight-control programme was considered in a feasibility project (Chapter 6). Finally, the opinions of a range of stake holders were sought through a series of semi-structured interviews with policy makers and patient representatives (Chapter 7).

### **3.2.1 Literature Review**

The literature review which was conducted in this research combined the use of electronic databases and hand searches. Electronic databases used included Pubmed, Embase, ISI-Web of Knowledge, the Cochrane Library and Scopus. Hand searches were carried out of *The Irish Pharmacy Journal*, *Irish Pharmacist*, *The IPU review*, *Irish Journal of Medical Sciences*, *Irish Medical Journal*, *Journal of Social and Administrative Pharmacy*, *International Journal of Pharmacy Practice*.

### **3.2.2 Qualitative Interviews**

Interviews offer a practical, flexible and relatively economical way of gathering research data, and have the advantage of providing the researcher with the opportunity to explore the context, rationale and detail of the interviewee's responses [207]. Qualitative interviews are a good means of measuring attitudes and for exploring areas that have not been previously studied [206]. The approach allows large amounts of contextual data to be quickly obtained and facilitates co-operation from the research subjects [208]. Face-to-face interviews offer the possibility of modifying the line of questioning to follow up on interesting responses and to investigate underlying motives. Non-verbal cues may give messages which help in understanding the verbal response [202].

Interviews can be categorised as being structured, semi-structured or unstructured [202]. Semi-structured interviews are the most appropriate when little is known about a certain issue but the research question has a definite direction [203]. They were therefore

considered suitable for exploring the views of stakeholders with regard to pharmacy in general and pharmacy based health promotion in particular. Statistical representativeness is not normally sought in qualitative research, and sample sizes are not determined by hard and fast rules, but by other factors such as the depth and duration of the interview and what is feasible for a single interviewer [209]. In this research a purposive sample of stakeholders was chosen. The policy makers chosen included people who were directly involved in policy making or influencing policy making in the areas of health, pharmacy and health promotion and the patient representatives were from two of the largest patient representative bodies in the country.

Interviewing is a complex exercise due to the interpersonal requirement of engaging people in open and frank conversations. Without trust and rapport few people will expose their inner thoughts to a stranger. Yet obtaining insight into people's thoughts, feelings and perceptions is the key objective of qualitative interviewing [201]. It is sometimes the case that participants initially give an account which responds to what they assume the researcher would wish to hear. Distinguishing between "public" and "private" accounts is crucial at the data collection stage and at the point of analysis [207]. Therefore the quality of information obtained during the interview is largely dependent on the interviewer [204]. It is vital that interviewers check that they have understood respondent's meanings instead of relying on their own assumptions [209]. Questions must be carefully planned to ensure that they are open ended, neutral, clear to the interviewee and relevant to the subject under discussion [204]. Researchers should ensure that they ascertain the interviewee's true beliefs through a dynamic process of building rapport, maintaining neutrality, questioning, listening, probing and by checking that have understood the interviewee correctly.

Interviews are generally recorded and transcribed verbatim and accurate transcriptions are an essential prerequisite for a detailed and valid qualitative data analysis [171]. The analysis normally involves the application of a coding procedure to the transcribed data which results in the identification of themes which are compared, discussed and organised into categories [171]. Inductive analysis involves discovering patterns, themes and categories in the data. Findings emerge out of the data, in contrast to deductive analysis where the data are analysed according to an existing framework. Qualitative analysis is typically inductive in the early stages, particularly when figuring out possible categories, patterns and themes. This was the approach used in this research.



There are some disadvantages associated with the use of qualitative interviews. The lack of standardisation raises concerns about reliability [202]. Biases are difficult to rule out and the quality of information obtained during an interview is largely dependent of the skill and experience of the interviewer [204, 208]. Validity of the data may be compromised in a number of ways including bias on the part of the interviewer or concerns on the part of the interviewee regarding the independence of the researcher or the confidentiality of the data [171, 206]. Findings may also be limited by the fact that interviewees are not equally articulate or perceptive [210]. Qualitative interview studies are likely to rely on samples very much smaller than the samples used in surveys or in structured interviews [211] but transcription and analysis of interviews can be time-consuming [206]. Because of their qualitative nature, the findings from such interviews are not generalisable. However, they can provide useful insights which can lead to the development of hypotheses that may have relevance and applicability beyond the sample involved in the research [171].

In addressing the research aim of this thesis it was necessary to understand the views of stakeholders regarding the role of pharmacists in health promotion. Although some studies have been conducted to ascertain the views of patients to pharmacy [162, 163] these were limited by the fact that they were small in scale and relied almost exclusively on quantitative approaches, and were thus subjected to the constraints of pre-determined categories of analysis [204]. Additionally, the views of important stakeholder groups, such as policy makers, in relation to pharmacy in Ireland had not been previously considered.

### **3.2.3 Focus Group Interviews**

A focus group interview is a type of group interview. Krueger defines a focus group as

*...a carefully planned discussion designed to obtain perceptions on a defined area of interest in a permissive, non-threatening environment. It is conducted with approximately 7 to 10 people by a skilled interviewer. The discussion is comfortable and often enjoyable for participants as they share their ideas and perceptions. Group members influence each other by responding to ideas and comments in the discussion [212].*

It is generally viewed as a qualitative research tool which can be used to research topics from the perspective of group participants, to explore their views and experiences and identify their concerns and priorities which may explain behaviour patterns [213]. An important aspect is the interaction amongst participants which provides a stimulus for the generation and discussion of a wider range of ideas and issues than would arise in individual interviews. Interactions among participants enhance data quality as participants tend to provide checks and balances on each other, thus weeding out false or extreme

views. The extent to which there is a relatively consistent, shared view or a great diversity of views can be quickly assessed [204]. Focus groups are generally relatively inexpensive and flexible as they can be set up quickly, and therefore represent an efficient technique for qualitative data collection [202]. They are often used in the developmental stages of a research project, but can also be used to ensure content validity of structured instruments or to obtain more detailed data following questionnaire studies. Although focus groups have been used in international studies to explore aspects of pharmacy practice [31, 214-218] they have not been used in this way in Ireland.

It is not intended that results from focus groups are generalisable and therefore random sampling is seldom used. The most important aspect in choosing participants is the intended purpose of the study [212]. Convenience or theoretical samplings are the most usual methods of sampling [201]. If there is a pool of prospective participants that meet selection criteria, randomisation helps to ensure a nonbiased cross section. In this research, pharmacists registered with the Pharmaceutical Society of Ireland formed the sampling frame from which participants were randomly selected.

As in qualitative interviewing, much of the success of a focus group depends on good questions and a skilled moderator. However the moderation process is more complex than in the normal interview situation due to multiple interactions not only between the interviewer and the respondents but amongst all the participants in the group [212]. Analysis of focus groups is similar to that of qualitative interviews.

Focus groups also have a number of limitations. Due to the group setting the number of questions that can be asked is limited and the available response time for any particular individual is restrained. Because of the group dynamic, skilled facilitation is required to ensure that the interview is not dominated by one or two people and that all views are heard. Caution must be exercised in the interpretation of the data; the extent to which topics are discussed is not necessarily an indication of the levels of priority which should be assigned to each [202].

Focus groups were an appropriate means by which to address a number of the research aims, including understanding current levels of involvement in health promotion, ascertaining pharmacist attitudes and identifying facilitators and barriers to health promotion delivery in community pharmacy [212]. Considering these issues by means of a



quantitative approach would have resulted in a premature narrowing of the focus of inquiry.

### **3.2.4 Simulated Patients**

Simulated patient studies are an example of a participative observational study [171]. A simulated patient is an individual who is trained to visit a pharmacy to enact a scenario, testing specific behaviour of the pharmacy staff [219]. The results from such visits can be collected in a number of ways, including written reports and recordings of the interaction, and are analysed to assess the quality of the interaction with the patient and the pharmacy staff. Simulated patients can be used to either assess current practice or to derive outcome measures for pharmacy practice research. Internationally this methodology has frequently been used for both purposes in community pharmacy [18, 30, 219-223]. On review of the literature, most studies which used this approach to explore counselling and advice provision did so in the context of the supply of a product [18, 30, 221, 223]. However this methodology could also be used to investigate the provision of health promotion advice.

Simulated patient studies offer a number of advantages over other methodologies [220]. It is generally possible to avoid a Hawthorne effect due to the fact that pharmacy staff members are not aware of the identity of the researcher. Internal validity is improved because standardised scenarios can be used, facilitating comparisons between pharmacies. Participation rates are improved by the fact that the researcher has control over the completion of visits. Behaviours rather than proxy measures are used to indicate the quality of patient interactions.

One of the disadvantages associated with this approach [219] is that there is a risk of bias if self-reporting by the simulated patient is the primary method of data collection. This bias can be reduced by training simulated patients, by using standard data collection tools or, where possible, by audio taping interactions to provide a method of validating self-reports. The results from studies that use only one or two simulated patients may be more limited and less generalisable than studies that use greater numbers of individuals to conduct visits, but this has to be balanced against the difficulties of standardising the approach in each pharmacy if too many simulated patients are involved. Ethical issues also need to be addressed [219].

Whilst there are no published studies on the use of simulated patient methods (or any of the analogous terms describing these studies) within pharmacy in Ireland as a formal research approach, some pharmacy chains have used simulated patients or “mystery customers” as an internal measure of customer care within their stores. These findings are usually restricted to circulation within the company concerned. Simulated patients have occasionally been used by the Irish media, normally for price comparison reports but occasionally for other purposes. In general the reports from such studies have not reported their methods and have been critical of the way in which community pharmacists respond to patient queries [224-226]. As a result, simulated patient studies are often seen in a negative light by pharmacists, with a presumption that they are used primarily to find fault, and their use has been contested within the pharmacy practice research community [227, 228]. Despite the concerns, it can be argued that fewer methods can provide a more accurate picture of the truth of practice [229].

A simulated patient study was used to assess the way in which patient requests for advice on weight control were handled in community pharmacies because this was considered a relatively rapid and feasible means of observing the reality of practice. The results from this study were compared to the results obtained from a self-completed pharmacist questionnaire to consider how closely self-reported activity mirrored actual practice.

### **3.2.5 Feasibility Study**

Although much of the emphasis of this thesis is on exploration, it was considered important to use the findings from the focus group and the simulated patient study to inform the development of a feasibility study. The hypothesis was that, if the issues which were raised in the other studies were addressed, it should be possible to develop a successful health promotion intervention within a community pharmacy.

Feasibility studies are used to assess the efficacy or practicalities of an intervention [213]. Such studies focus on specific features of the service that would be deemed essential for its success (e.g. clinical efficacy or acceptability to health professionals or patients). If problems arise at the feasibility stage, it would be unlikely that an initiative would be effective when implemented more extensively unless such problems were addressed [171]. If the feasibility study demonstrates that the service can work on a small scale, a subsequent broader evaluation can be used to assess if the service works when offered in a typical range of practice settings.



The purpose of feasibility studies is two-fold: to assess if a programme's procedures and methods are feasible and to monitor if the chosen methods produce the desired results [203, 213]. Although many small scale studies have been carried out in Ireland where the efficacy of interventions has been assessed, the practical feasibility of developing and delivering such a programme has seldom been addressed [178-181]. In this research a weight-control programme was developed, its clinical effectiveness assessed and the issues that need to be considered before such a programme could be up-scaled were identified.

### **3.2.6 Sampling**

Sampling methods can be divided into two main categories: probability methods (which yield high generalisability) and non-probability sampling methods (which produce weak generalisability) [203].

Probability sampling methods include simple random sampling, systematic random sampling, stratified random sampling, cluster sampling, multi-stage cluster sampling and stratified multistage cluster sampling. Using these methods, statistical inferences about the population can be made from the responses of the sample, assuming an adequate sample size has been used. The larger the sample, the lower the likely error in generalising [202].

Although probability sampling confers many benefits, it is important to note that whenever the population being studied is narrowly defined, it may be difficult to employ such techniques. Non-probability sampling methods include convenience sampling, purposive sampling, quota sampling and snowball sampling. These methods are acceptable when there is no intention or need to make a statistical generalisation to any population beyond the sample surveyed and they are often very useful in exploratory research.

A range of sampling strategies was used for the studies presented in this thesis. A mix of convenience and systematic random sampling was used to select participants for the focus groups. A systematic random sample was used to select pharmacies for inclusion in the simulated patient study. Purposive sampling techniques were used to identify stakeholders who could participate in the semi-structured interview study. In the feasibility study no formal sampling methods were used as participants were self-selecting.

### **3.2.7 Triangulation**

Mason defined triangulation as the combination of methods to explore one set of research questions [230]. However, others have defined it as combining different types of data, methods or approaches within the same research study [231]. Denzin distinguished four types of triangulation: data triangulation, using more than one method of data collection; observer triangulation, using more than one observer in the study; methodological triangulation, combining quantitative and qualitative approaches; theory triangulation, using multiple theories or perspectives [232]. In commenting on these, Robson stated that triangulation can help to counter threats to validity, can allow an issue to be explored from a range of angles and can be used to enhance interpretability of studies [202].

However, it has been argued that combining approaches ignores the influences of the methodological contexts in which the different data-sets are obtained, these contexts being important to the interpretation of the data [231]. Mason cautioned against the use of triangulation to “*check out one method against another*”. Instead she suggested that triangulation should be used to approach research questions from different angles and to explore intellectual puzzles in a rounded and multi-faceted way. When used in this way, triangulation does enhance validity, as multiple methods allow different dimensions of social phenomena to be explored [230].

This research used a triangulation of data from each of the aforementioned studies to explore the factors affecting service delivery within community pharmacy from a number of perspectives. To avoid confusion of research philosophies all studies were conducted independently of each other before triangulation of results. The process of triangulation in this thesis provided a comprehensive overview of the issues relating to pharmacy based health promotion in Ireland.

### **3.3 Ethical approval**

Ethical approval for this study was obtained from the Trinity College Dublin Health Sciences Ethics Approval Committee for the simulated patient study (Chapter 5) and the semi-structured interviews (Chapter 7). At the time of conducting the focus groups and developing the feasibility study the School of Pharmacy was part of the Faculty of Sciences and ethical approval for these studies was not considered necessary. Informed consent was obtained from all participants and ethical standards were applied to all research.



## **4 A Study of Pharmacists' Opinions and Attitudes to Health Promotion**

### **4.1 Introduction**

In America, Rappaport et al. suggested that the success of public health roles for pharmacists depended on general agreement on the acceptance of these roles by pharmacists and pharmacy leaders [233]. A number of studies have explored pharmacists attitudes internationally [43, 48, 234-236], but relatively few studies have been conducted in Ireland. In 2005, a survey of 47 pharmacies in the Health Service Executive Midland Area (Laois, Offaly, Longford and Westmeath) found that all respondents believed that they had a role to play in promoting healthy behaviours [237]. The means by which pharmacists reported involvement in health promotion included providing information, increasing awareness through promotional days and other events, providing screening and monitoring services and publicising public health issues. A small number reported adopting a proactive approach to providing information to patients. The barriers to increased involvement were time, privacy for consultation, staff resources, lack of training and lack of perception by customers. Although this provided some insights into pharmacist opinions, the study was small in scale and the validity of the instrument was not considered. Consequently the area warranted further investigation. This research used a series of focus which allowed for the exploration and in-depth analysis of issues.

### **4.2 Aim and Objectives**

The aim of this study was to gain a greater understanding of pharmacist attitudes to and involvement in health promotion in the community pharmacy setting.

Focus groups were used to achieve the following objectives:

- To consider pharmacists' perceptions of health promotion
- To identify current health promotion activities within community pharmacies
- To determine factors which facilitate and prevent the delivery of health promotion
- To assess opinions and attitudes to further involvement in health promotion
- To generate ideas about how weight control could be addressed within the community pharmacy setting

## 4.3 Methods

Five focus groups were conducted with a total of 39 pharmacists (8 of whom were pre-registration pharmacists).

### 4.3.1 Development of Question Plan

A sequence of questions was developed to address the aims of the research. Opening, introductory, transition, key and ending questions were used in the question plan to facilitate natural progression of conversation [238]. The face and content validity of the question plan were assessed by five reviewers, three of whom had experience in the area of pharmacy practice, and two of whom were experienced in focus group facilitation and analysis. This resulted in some minor modifications. The resultant question plan is presented in Table 4-1.

- Ask everyone to introduce themselves to the group, say where they are working and tell us something that they enjoy about their job. (*Opening Question*)
- What do you understand by the term health promotion? (*Introductory/Key Question*)
- How is health promotion delivered in community pharmacy? (*Transition Question*)
- How are you, or have you been, involved in health promotion? (*Key Question – Current involvement*)
- What makes it possible to provide health promotion in these cases? (*Key Question – Facilitators*)
- What would help you to deliver more health promotion? (*Key Question – Facilitators*)
- What prevents you from providing (more) health promotion? (*Key Questions – Barriers*)
- What areas of health promotion do you think pharmacists could be involved in? (*Key Question – Potential areas of HP*)
- What types of people do you think could most benefit from health promotion in the pharmacy? (*Additional question – time permitting*)
- What health promotion services do community pharmacists provide in the area of weight control? (*Additional question- time permitting*)
- What more could pharmacists do to promote weight control? (*Additional question – future involvement in weight control*)
- If you were to sum up your opinion of HP, what would it be? (*Ending/Summary Question*)

Table 4-1 Summary of Focus Group question plan

### 4.3.2 Sample Selection

Two focus groups were conducted with convenience samples and three were conducted with systematic random samples [203].



The first focus group (convenience sample) was conducted during a pre-arranged meeting of 8 Boots pre-registration pharmacists who were at the end of their pre-registration year and about to register as pharmacists. The second focus group (convenience sample) was conducted during a meeting of 6 Boots regional pharmacy managers.

The participants for the third, fourth and fifth focus groups were obtained by systematic random sampling. For the first group, all community pharmacies located in the greater Dublin area were identified from the 2005 PSI register (pharmacies listed alphabetically according to the name of the pharmacy) and used as a sampling frame (n=385). Boots pharmacies were removed from this frame (as the first two focus groups had contained Boots pharmacists exclusively), and the remaining pharmacies were divided into 8 sub-groups (47 pharmacies in each subgroup), with each pharmacy in each sub-group assigned a number sequentially from 1 to 47. Microsoft Excel [239] was used to generate a random number between 1 and 47, and the pharmacy corresponding to this number in each sub-group was selected. If a pharmacist declined to participate in the study, the next pharmacy in the sequential numbering within the same sub-group was then contacted, and this was continued until a willing pharmacist was identified.

A similar approach was used for the fourth focus group, but all pharmacies that had been sampled for the third group were omitted from the sampling frame. For the fifth focus group, the sampling frame consisted of community pharmacies on the 2005 PSI register which were located in Carlow, Kilkenny and Kildare (n=101)

### **4.3.3 Recruitment of Focus Group Participants**

For the first two focus groups (convenience samples) the chair of each meeting was contacted and permission was obtained to conduct the focus group for ninety minutes at an agreed time during the meeting agenda. The participants were contacted in advance of the meeting to explain that a focus group would be conducted and to ask if they would be willing to participate.

For the other three focus groups (systematic random samples), the selected pharmacies were contacted by telephone and the researcher asked to speak to the pharmacist on duty. The calls were made approximately three weeks prior to the focus groups. Each pharmacist was initially provided with a brief explanation of the purpose of the call and

asked if it was convenient for them to take the call. Those who were busy were asked to suggest an alternate time for the researcher to call back. The same information was imparted to each pharmacist during the conversation, according to the Telephone Invite Guide, as set out in Appendix 4.1. All responses were recorded on the Summary of Invite Conversation Form, as set out in Appendix 4.2. If they declined to partake in the focus group, pharmacists were asked to cite their reason for their decline and this was noted.

A personalised information letter and directions to the venue were sent out to each participating pharmacist within two days of the phone conversation (Appendix 4.3). Each of the participants was also contacted the day before the focus group to confirm attendance. The focus groups were conducted between August 2005 and May 2006.

#### **4.3.4 Conducting the focus groups**

The two focus groups with Boots employees were incorporated into the agenda of pre-arranged meetings and conducted at the location of the meetings. The remaining focus groups were organised as an evening event in a hotel. The events were held in the middle of a month, to ensure that they did not coincide with the increased administrative workload associated with the beginning and end of the month when pharmacists must submit their reimbursement claims. The timings of ICCPE events and IPU meetings were checked to ensure that focus group did not coincide with other pharmacy-related events. The timing of the session was planned to allow people to attend directly after work, and a light buffet supper was organised.

In each focus group participants were asked to complete a registration sheet providing background information on their demographic information and their pharmacy experience (Appendix 4.4). Each participant was provided with a name badge. Two voice recorders, one digital (Sony ICD-P320) and one tape (Sanyo TRC 1149) were used to capture the conversation.

The primary researcher moderated the focus groups. This individual had been trained in group facilitation and had considerable experience in facilitating group discussions as part of her work in Boots and Trinity. The researcher also received additional coaching from two experienced focus group moderators. One of these individuals attended the first focus group, to assess moderation technique and provide feedback. A facilitator took notes to



identify who spoke throughout the conversation and to record and make observations on other non-verbal communication, such as body language and facial expressions.

The questions from the question plan were asked using a conversational tone and in a sequence that facilitated a natural flow of conversation within each focus group, which was not always the sequence set out in the plan. The opening question was not used in the focus groups with Boots staff as participants were already known to each other. Questions were initially asked as open ended questions and were followed by prompts for additional discussion where appropriate.

Each focus group was scheduled for approximately 90 minutes. Pharmacists were provided with the researcher's contact details and invited to call if they wished to discuss any issues raised in the focus groups.

#### **4.3.5 Analysis**

Digital recordings were transcribed verbatim and tested for reliability by another researcher. The resultant transcripts were analysed using thematic content analysis. The question plan was used to create the following initial categories: definitions of health promotion; examples of health promotion in community pharmacy; factors which act as barriers or facilitators to health promotion; potential areas for involvement in the future; ways in which pharmacists could help with weight control. Within each category, themes and sub-themes were inductively derived while coding the data. NVivo (Version 2) [240] was used for data management and the researcher received training on the use of this software. Qualitative and quantitative contributions were linked in a relational database to allow analysis of the relevant importance attributed to each of the themes by participants. Themes were validated by a second coder.

A second coding approach was applied to the transcripts for identification of facilitators and barriers. Using anticipated themes, transcripts were searched using a combination of automatic and manual searches for all quotes relating to those themes. Automatic searches were reviewed to ensure that non-relevant references were removed. The resulting data within each theme was analysed for sub-themes. A typical model of node and sub-node structure for this coding strategy is represented in Appendix 4.5. Coding was validated by a second coder, not the same person who validated themes from the inductive approach. Internal validity was ensured by cross validation of results from both coding approaches.

## 4.4 Results

### 4.4.1 Recruitment

All the attendees of the Boots meetings agreed to participate in the focus groups as part of the agenda of their meeting. The first focus group consisted of eight pre-registration pharmacists (6 female and 2 male). All group members were of similar age and experience and all worked in Dublin. It was intended that this group would be used to pilot the question plan and to assess the skill level of the moderator. The focus group was observed by an academic with considerable experience in focus group research. Feedback from this academic indicated that the question plan was suitable and required no further changing and that the skills of the moderator in facilitating the session were satisfactory. As a result, the information collected at this focus group was deemed acceptable for inclusion in the study, rather than be used as a pilot study as originally intended.

The second focus group was made up of pharmacists who worked as area managers (2 male, 4 female), 5 of whom worked in Dublin and 1 of whom worked in Cork.

For the third, fourth and fifth focus groups, 50 pharmacies were contacted to recruit a total of 24 pharmacists (8 per group). The 8 pharmacists who were recruited for Focus group 3 attended as arranged. However there were some changes in group composition between the time of recruiting participants and holding the focus groups for Focus groups 4 and 5. One of the pharmacists cancelled the day before Focus Group 4. A replacement pharmacist was recruited, to maintain a group of eight. However, the pharmacist who had cancelled sent a replacement (without communicating this to the facilitator) and another member of the group brought a colleague, resulting in a group of 10. Two pharmacists cancelled on the day of Focus Group 5, and one replacement was recruited resulting in a group of 7. The characteristics of participants, as provided in the registration sheet, are summarised in Table 4-2. There was representation of pharmacy owners, pharmacy managers (in single pharmacies and within a chain of pharmacies) and employee pharmacists (in single pharmacies and within a chain of pharmacies) within the focus groups. There was no representation of pharmacy owners who owned more than one pharmacy or locum pharmacists.



Focus Group	Gender split	Number of years qualified	Employment status	Full time or Part time	Other qualifications	Experience in other pharmacy sectors/countries
FG1	2 male 6 female	All in pre-registration year	All Boots pre-registration pharmacists	Full time	N/A	Not applicable
FG2	2 male 4 female	4, 7, 9 (x3) and 12 years	All Boots regional pharmacy managers	All full time	1 x MSc (Clinical Pharmacy)	5 had worked in the UK
FG3	3 male 5 female	1, 6, 12, 14, 16, 30, 33, 45	5 x Pharmacy owner 1 x Pharmacy manager in a chain 1 x Employee within a chain 1 x Pharmacy manager in a chain	All full time	1 x Barrister at Law 1 x BSc pharmacology	7 had worked in Hospital 3 had worked in Northern Ireland 2 had worked in Australia
FG4	3 male 7 female	8, 6 (x2), 11, 12, 15, 17 (x2), 25, 28	4 x Pharmacy owner (single) 2 x Employee within a single pharmacy 1 x Employee within a chain 2 x Pharmacy manager in a chain 1 x IPOS purchasing pharmacist	9 Full-time 1 Part time	1 x Prescribing support pharmacist 1 x Veterinary Certificate 1 x Postgrad in Community pharmacy 1 x Certificate Naturopathic nutrition 1 x Diploma in markets 1 x BSc Science	3 had worked in Hospital pharmacy 1 had worked in Northern Ireland 1 had worked in Pharmaceutical Research
FG5	3 male 4 female	5, 7, 8, 9, 10, 11 and 26 years	2 x Pharmacy owner (single) 1 x Employee in single pharmacy 1 x Employee within a chain 1 x Pharmacy manager in a single pharmacy 2 x Pharmacy manager within a chain	6 Full time 1 Part time	1 x Health and Safety Maters 1 x Diploma in Veterinary Pharmacy 2 x MSc (Clinical pharmacy) 1 x Supplementary prescribing qualifications & MUR trained	3 had worked in Hospital pharmacy 2 had worked in the UK

**Table 4-2 Summary of Focus Group participant characteristics**

The reasons given by those pharmacists who declined to participate in the focus groups are summarised in Table 4-3.

<b>Number of declines</b>	<b>Reason for decline</b>
9	Other commitments (of whom 5 expressed interest)
6	“Only the locum”
4	Working late (of whom 3 expressed interest)
4	Had arranged holidays (of whom 2 expressed interest)
1	Not interested
1	“Would feel too intimidated to talk to people discussing big ideas”
1	Too busy for initial conversation - beginning of the month administration – and did not want to receive a phone call at an alternative time
Total = 26	

**Table 4-3 Reasons given by non-participants for declining to attend focus groups**

#### **4.4.2 Facilitation of the Focus Groups**

Each of the focus groups lasted 90 minutes, with the exception of the second focus group with Boots regional pharmacy managers, which lasted just under 60 minutes. All of the questions from the question plan (including additional questions) were discussed in all groups. In general, conversation flowed easily with participants frequently posing questions to each other about aspects of the discussion. Participants were particularly interested in hearing about services that other pharmacists had been involved in, especially where pharmacists had worked outside of Ireland.

There was general agreement on most issues, with participants building on what others had said rather than refuting it. The topics raised by the different groups were similar and saturation was reached by Focus Group 4. It was anticipated that new themes, specific to pharmacy practice in rural areas, might occur in Focus Group 5. However, this was not the case and the themes raised in this focus group were similar to those raised in the others.

Some difficulties were encountered in maintaining the focus of the conversation on health promotion. At the time of the focus groups there was much uncertainty within the pharmacy sector regarding potential changes to remuneration and the impending change in pharmacy legislation. Conversations frequently strayed to discussions about these impending changes in remuneration and expressions of frustration at the lack of understanding of the pharmacist’s role amongst policy makers. These were much more noticeable in the randomly chosen focus groups than in the Boots ones. Frequent interruptions and reminders were required from the moderator to bring the participants back to the topic of health promotion. In the third focus group the use of a flip chart was



required to focus attention on the task of identifying facilitators and barriers. Tangential conversations were usually resumed after each of the focus groups had finished.

A small number of particularly quiet participants were encountered in some of the groups. Two participants provided minimal contribution in the first focus group, one remained largely silent for the duration of the third focus group and two participants contributed little during the fifth focus group. One of these participants in the fifth focus group appeared to have difficulty in expressing her opinions due to the fact that she was not a native English speaker. Contributions from these individuals were actively sought at several stages during the groups and efforts were made to elicit their views on specific issues.

A small number of dominant talkers were also encountered. Moderation techniques were utilised to ensure that these individuals did not dominate the conversation and that views were heard from all participants [241].

Seven pharmacists expressed interest in being involved in any future studies by making a note to this effect at the bottom of their registration form. This interest was unsolicited. Two pharmacists contacted the researcher by phone afterwards, one to seek help in establishing a pharmaceutical care project in her pharmacy and the other to discuss the issues about health promotion further, particularly in the context of her experience in Northern Ireland.

#### **4.4.3 Analysis**

A total of 188 pages (single spacing) of transcription were generated for analysis. Table 4-4 summarises the word count of the transcripts from each focus group.

<b>Focus Group</b>	<b>Transcription word count</b>
FG1	13,601
FG2	6,935
FG3	21,213
FG4	16,731
FG5	13,379

**Table 4-4 Summary of focus group transcription word counts**

The themes and sub-themes identified in the inductive coding approach are described below.

#### **4.4.3.1 Opening Question**

The opening question asking pharmacists what they enjoyed about their job was not intended for analysis, but rather to ensure that everyone had introduced themselves and had the opportunity to speak from the beginning. However, a consistent theme emerged within these introductions, with most pharmacists describing interaction with people as the most enjoyable aspect of their job:

*I enjoy it because it's a poor area and you get a lot of opportunities to engage with people, on a one to one. (3:1)*

*What I love about the job?... the people. Working with people and fitting into the community. (5:6)*

#### **4.4.3.2 Definition of Health Promotion**

Pharmacists generally defined health promotion as a way of encouraging people to make healthy lifestyle choices by directing, educating and providing information:

*Giving them [people] ideas on how to change their current lifestyles. [2:5]*

*Educating people in all areas of health. [4:6]*

*Talking to people about healthy lifestyle and basic diet stuff. [5:4]*

The aim of health promotion was largely seen by pharmacists as the prevention of ill health....

*It's more preventative rather than having to go down a therapeutic route later. [2:4]*

...although some also described it as raising awareness of disease or helping people to cope with an existing condition:

*Making them aware of health groups for ... people living with ... medical conditions. [5:1]*

#### **4.4.3.3 Current Health Promotion Activities in Community Pharmacy**

Some pharmacists felt that they delivered health promotion every day as part of their daily work:

*I think we do so much without ever realising we do. [1:4]*



*You don't operate in a community pharmacy... a busy one, for an hour bar someone asks you a question, which you could feel is part of health promotion. (5:7)*

This was mainly discussed by the pre-registration pharmacists, and was not mentioned at all in focus groups 2, 3 and 4.

Table 4-5 provides a summary of the types of health promotion activities that respondents described being carried out in community pharmacies with an indication of how often each activity (sub theme) was mentioned within each group.

Focus group	Health Promotion Activities							Total
	Advice when selling products	HP events	Leaflets and posters	Advice when dispensing prescriptions	As part of everyday interactions	Screening	Request from community	
FG1	18	5	14	6	11	0	1	55
FG2	7	5	4	4	0	3	0	23
FG 3	1	1	4	5	0	1	1	13
FG 4	1	13	4	3	0	1	2	24
FG 5	5	6	3	4	3	2	0	23
<b>Total</b>	<b>32</b>	<b>30</b>	<b>29</b>	<b>22</b>	<b>14</b>	<b>7</b>	<b>4</b>	<b>138</b>
<b>Figures indicate the number of times each activity was mentioned by each group</b>								
<b>Please note: These quantitative representations of qualitative data are only intended to provide the reader with insights into the nature of the conversations and can not be interpreted to signify the relative importance of issues.</b>								

**Table 4-5 Summary of the types of health promotion activities that were mentioned during focus groups**

A large proportion of the pharmacy-based health promotion cited was associated with supply of products such as Nicotine Replacement Therapy (NRT) and dietary aids:

*I think it's our role probably doing Health Promotion in like, probably, nicotine you know, NRT or something like that. [1:6]*

*I'm sure we all have dietary sections in our stores, and because of that you're going to have a lot of people asking advice. [2:2]*

Some also felt that counselling provided whilst dispensing prescriptions could also be considered as health promotion. Most of these examples related to diabetic and asthma patients:

*I gave a bit of time to maybe show them how to use their inhalers, or maybe blood glucose meters, you know, maybe go through those with them, you know. The little things that they mightn't maybe have known. [5:1]*

The provision of leaflets and posters as a means of health promotion was mentioned by all groups. These materials were mainly provided by companies, patient advocacy groups and the Irish Pharmaceutical Union:

*At one stage we had leaflets [from the Irish Cancer Society] for men over 50. It was handy. You could just give the leaflet to them and say think about this or go to the doctor or whatever. It was good to have. [5:4]*

The sub-theme of “Health promotion events” was analysed to explore how such events were organised. In general these events were coordinated by external groups (Table 4-6), such as pharmaceutical companies.

Health promotion events were organised by...							
	Patient groups	IPU	Pharmaceutical company	Pharmacy	Health board	Not specified	Total
FG1	1	2	0	0	1	1	5
FG2	0	0	4	1	0	0	5
FG 3	0	1	0	0	0	0	1
FG 4	1	0	6	0	1	5	13
FG 5	1	1	3	1	0	0	6
<b>Total</b>	<b>3</b>	<b>4</b>	<b>13</b>	<b>2</b>	<b>2</b>	<b>6</b>	<b>30</b>
<b>Figures indicate the number of times each activity was mentioned by each group</b>							
<b>Please note: These quantitative representations of qualitative data are only intended to provide the reader with insights into the nature of the conversations and can not be interpreted to signify the relative importance of issues.</b>							

**Table 4-6 Summary of organisations which coordinated health promotion events in pharmacies**

Pharmacists described how support from companies sometimes involved the provision of additional staff or distribution of products:

*We got a diabetes nurse in from [Name of company]. [4:1]*

*We were giving out free blood glucose monitors in the pharmacy....we just did a deal with [Name of company]. They sent them in for free to us, and we threw them out left right and centre, to anyone who wanted one at all. [5:5]*

Screening programmes were mentioned by some pharmacists, all of whom referred to their delivery within a chain of pharmacies. These were funded by the patients who availed of the service. No examples were provided of screening programmes within independently owned pharmacies.

A number of examples of pharmacy based health promotion from other countries were provided by pharmacists who had worked outside Ireland. Many of these initiatives were



delivered as part of multidisciplinary teams or under service agreements with local or national bodies:

*As part of a Health Project in the North there was a study in Mid-Ulster where the Polish community were being targeted. [4:7]*

#### 4.4.3.4 Facilitators

There were a range of factors which acted as facilitators to the delivery of health promotion, most of which related to the characteristics of community pharmacy, including interactions with people, the sale of products and prescriptions and the aspects of community pharmacy such as accessibility and low cost (Table 4-7).

Factors which facilitate health promotion									
Focus Group	Large range of interactions with people	Opportunity created by product sales or Rxs	Aspects of community pharmacy	Coordination support	Expertise	Leaflets and posters	Pharmacy facilities	Staffing	Totals
FG 1	13	39	5	3	0	8	0	0	68
FG 2	8	12	0	0	0	2	1	0	23
FG 3	13	3	9	1	5	1	1	1	34
FG 4	20	1	6	11	7	3	1	4	53
FG 5	18	11	3	5	5	2	2	0	46
<b>Total</b>	<b>72</b>	<b>66</b>	<b>23</b>	<b>20</b>	<b>17</b>	<b>16</b>	<b>5</b>	<b>5</b>	<b>224</b>
<b>Figures indicate the number of times each factor was mentioned by each group</b>									
<b>Please note: These quantitative representations of qualitative data are only intended to provide the reader with insights into the nature of the conversations and can not be interpreted to signify the relative importance of issues</b>									

Table 4-7 Summary of the factors which facilitate health promotion in pharmacy

##### 4.4.3.4.1 Interactions with people

Pharmacists reported having a wide variety of interactions with a large number of people, both sick and healthy, on a day to day basis and this was identified as a significant facilitator of health promotion delivery. Interactions were greatly facilitated by the ease of access to pharmacies, with long opening hours, lack of appointment system and nationwide distribution, attributes shared by no other profession:

*No one is in a better position to promote health than a community pharmacist...because we are the most consulted health care professionals and people can walk in off the street in any pharmacy in any town in Ireland and without making an appointment ...you can **always** access a pharmacist. [1:3]*

Pharmacists who had worked in the same shop for many years explained how they had built up relationships with their customers over time, and often knew entire families or indeed generations of families within the local community:

*I think the fact that they're regulars does help. You know a whole family. [2:4]*

*There are people who come in whose grandparents came into the shop. [3:7]*

Pharmacists felt they were trusted by the public:

*I think the general public trust us, you know. Certainly in a small community place, they do come to us. Often they'd come to us first before they'd go to the doctor. Partly because we are free, but also because they trust us. [5:4]*

Some pharmacists felt that they acted as a safety net for patients who had not received adequate information from other healthcare professionals:

*I had a girl who came in. She had Chron's disease and she was on medication for about 6 months and I just started chatting to her about it and as I talked to her... nobody had actually sat her down and told her what it was. She had no information on it. All the prescriptions were coming from the hospital but nobody actually sat her down and said to her that this is what it is. From just actually chatting to somebody or picking up bits of information you can discover how little some people know and they may not know that there are support groups there so you are in a position to give those. [4:2]*

It was felt that the large range of interactions with people within pharmacies made it a good location for the delivery of health promotion compared to some other healthcare professionals:

*The fact that you see your pharmacist quite often makes it easier than your GP. [3:8]*

#### **4.4.3.4.2 Opportunities created by the sale of products and screening services and dispensing of prescriptions.**

The sale of products and services within community pharmacies provided useful opportunities to give health promotion advice. This was particularly highlighted by pre-registration pharmacists:

*It's an opening, a person comes and asks you about it so you're not actually going out and actually approaching the person and saying can I talk to you about your diet, do you know, it's an opening for you to get to them. [2:4]*



Specific examples of over-the-counter products that served as openings to health promotion conversations included NRT, dietary aids, sun-tan lotions, children's medicines, cough medicines and vitamins:

*Like someone coming up and they're snow white with a factor five I think its kind of promoting health when you hand them the 25 and tell them that it might be a better idea. [1:4]*

Although pharmacists sometimes dissuaded customers from buying products, they felt that the inquiry still provided an opportunity to provide health related information

*Even with the diabetic chocolate and biscuits and stuff, a lot of the time people are buying them for people that they're going to visit, and they know they're diabetic and they don't know what to bring them so they are going to bring that because it says diabetic chocolate, and [I] explain to them like, "you know you're not actually helping them out. [1:1]*

Without those openings the pre-registration pharmacists, in particular, described how it was difficult to initiate health promotion conversations:

*If somebody is on no medication, how are you supposed to become involved in health promotion for them? [1:2]*

It was considered easier to initiate conversations with people who were collecting prescriptions, because pharmacists had the "right" to provide health promotion advice in these cases:

*You can see that [providing health promotion when dispensing prescriptions] as part our job at the minute, because it's to do with their drugs, so you have a right to say or might be seen to have, to be able to say it, whereas if you're just picking up someone that's not coming in for anything ... I don't know. [1:7]*

Pharmacists did not report the same concerns:

*You can advise someone in healthy lifestyle, they don't necessarily have to buy anything. [2:3]*

However, the support provided by companies, through media campaigns relating to products, was identified as a facilitator:

*Media coverage, I would have thought is a big thing, so around Nicorette campaigns, there is huge media advertising, which people are significantly drawn towards it then because people are so influenced by advertising. [2:2]*

Some pharmacists who had delivered screening services felt that this was an effective way of raising awareness about specific diseases:

*When I was in [name of chain] we were doing the blood glucose monitoring ...Just kind of listing lets say the symptoms of diabetes like say, people would recognise them and think "Jeepers yeah, maybe I do have it" you know. And then take the actual test as well, and give them advice. [4:5]*

#### **4.4.3.4.3 Health promotion materials**

The majority of pharmacists felt that having leaflets or posters displayed in the pharmacy created opportunities for health promoting conversations with patients:

*You'd be leaving the leaflets there on the counter, whatever, and people who pick them up and read them and it could start a discussion. [5:1]*

There were references to specific leaflets that pharmacists found useful, and "The Manual", a health information booklet provided by the Irish Cancer Society was specifically mentioned as being particularly useful in three of the five focus groups:

*You know the manual magazine. That proved very popular...with the men. [4:9]*

*We had people coming in at the prostate one, you the "What's going on under your bonnet?" ...that one..... But more often than not its wives coming in. [1:5]*

Pharmacists also mentioned leaflets regarding sun-protection, weight loss, sexual health and breast feeding. Many pharmacists felt that it would help if they had access to leaflets which were given out by other healthcare professionals:

*We don't get leaflets say like dieticians' leaflets or that doctors give out. Maybe we should be getting them as well, to hand to patients. [3:6]*

#### **4.4.3.4.4 Support for coordination of events**

Although a lot of health promotion activity arose from opportunistic interventions with patients on a one-to-one level, a number of pharmacists organised broader health promotion campaigns. It was suggested that organisation of such events was made easier for pharmacists working in chain pharmacies, due to central coordination:

*Well I worked in [Name of chain] briefly and I have to say that there was great support from Head Office. They would have a marketing team who would*



*drive various promotions each month ... you'd get your show cards, you'd get all your posters. You just had to arrange staff, and they would arrange for the companies to bring in somebody. [4:1]*

Pharmacists that did not work as part of a chain relied directly on external bodies for their support. This included pharmaceutical industry and voluntary groups. However pharmacists were cognisant of the fact that the ultimate aim for pharmaceutical companies was to promote their own products:

*The only people I've been in contact with have been the commercial companies themselves who promoted their products. [4:3]*

In some cases pharmacists were not fully aware of the status of the individuals that were sent in by companies:

*[Name of chain] brought it in [weight loss programme associated with a dietary aid] across all their stores going back about four or five months ago. Now whether she's a dietician or what she is, I actually don't know. She goes around the shops once a fortnight and she knows patients and does a weigh in once a fortnight with them and asks them how they're getting on but it is very product driven... sales of this and sales of that. [5:5]*

All pharmacists appeared to agree that support in coordinating events would facilitate further involvement in the area. Ideally that support should come from an independent source, such as the HSE:

*I the HSE if we had a liaison person like that who organised these things ... it would be hugely advantageous [4:8]*

This type of coordination could reduce the variation that exists between pharmacies.

*Coordinate it so that we're all doing the same thing and focussing on the same thing. [5:3]*

Pharmacists who had experience of working outside of Ireland provided examples of health promotion which was coordinated locally by independent bodies or driven by change in contracts with the government:

*In the North...we were involved in lots of different health promotion projects... we'll say flu campaigns and oral dental health and smoking cessation and things like that. We didn't just keep them in the pharmacy... we took them out into the community ...it was in conjunction with the health boards. There was good support there. [4:7]*

#### 4.4.3.4.5 Expertise

Pharmacists felt that they had a broad set of skills, providing them with the expertise necessary to provide information on a wide range of health promotion topics:

*Wide range of knowledge and communication skills ... We are not really specialised in any one area. [4:9]*

*A lot of the time you'll find that pharmacists have the information to hand... straight off. [5:6]*

Training was something that most pharmacist felt was necessary to ensure that that they remained skilled. The Irish Centre for Continuing Pharmacy Education (ICCPE) was cited as the most usual way of accessing continuing education. Training programmes were also provided within chain pharmacies, and these seemed to be focused on developing skills for a particular programme:

*All staff in the shop were given basic training on say diabetes symptoms etcetera that came in so they would be able to have a conversation with people about it and they were certainly picked up by the pharmacy then. Say, in my shop there were five of us who were sent off for training on how to actually test the levels. [4:5]*

For those who were involved in delivery of programmes in the UK, training was usually provided beforehand. It was generally felt that training facilitated involvement in health promotion but it was acknowledged that it did not automatically result in increased skill for some pharmacists and much depended on the personal interests of pharmacists:

*Some chemists are better with people than others. Training on communications skills helps alright but if there has to be something there in the first place is another kettle of fish though. Some people are better suited to it than others, I think myself though. You know. [5:5]*

#### 4.4.3.4.6 Staffing

Having adequate staffing levels within the pharmacy made it easier for pharmacists to deliver health promotion. A number of pharmacies are staffed by two pharmacists, which allowed for greater involvement in the delivery of new services:

*We would always have two pharmacists in the shop so I would be interested in looking at new ideas. [3:7]*



*I have another pharmacist as well and we have a pharmaceutical assistant. So there are three of us, so obviously we want to move forward with the idea of health promotion. [4:8]*

In particular staff continuity was seen as a facilitator. One pharmacist described how she invested money in her staff to ensure such continuity of pharmacists:

*We'd do a lot of methadone, and so the extra money that I would have made out of that, would be used to make sure that I have the same staff all the time. [3:7]*

Pharmacists who had worked abroad spoke about support for pharmacist staffing was provided by the government:

*If it was busy, the government will pay you to get a locum in. [3:4]*

*And you're paid for locum cover and everything. All materials. That's forward thinking, that's an ideal world compared to what we have here. [5:6]*

A small number of pharmacists mentioned that non-pharmacist staff were also a useful resource in building relationships with patients:

*The staff are often very local as well, you know they might know them or see them. [4:3]*

In some examples from the UK, the use of other members of the pharmacy team in screening programmes was seen as a realistic way of managing pharmacist time constraints:

*Our healthcare assistants and pharmacy assistants were the people who actually did the actual technical part of the [cholesterol] test, and then the pharmacist came in then whenever the result came through. [2:2]*

#### **4.4.3.4.7 Pharmacy facilities**

Some pharmacies had additional facilities which they believed facilitated them in their roles as health promoters. For example many pharmacies have private space for consultations:

*We renovated the pharmacy last year, and most of our dispensing is now done from upstairs, so there's a bit more room to do things down stairs, and there is room upstairs for patients if they need it. [3:7]*

Although some pharmacists had space, they found it difficult to use if there was not another pharmacist on duty to cover the work in the dispensary:

*We would have a lot of space actually... We have two rooms at the back... however, the thing is to have cover when you are in there. [4:4]*

One pharmacist had overcome this problem by re-designing his shop so that he could move freely between the pharmacy and consultation area:

*We came up with a circular consultation area, which is linked by one door leading into the dispensary, so I can get in and out to treatments in this consulting area. The consulting area from the front, it's open, there is no door on the front of it, but it means I can ... can nip into it for a quick chat, then back into the dispensary again without accessing the floor. [5:7]*

Another pharmacist in the group, who had previously worked in the UK, queried how the development of such consultation areas was financed:

*Participant 6: Is there any funding coming from anyone for it (consultation area)?*

*Participant 7: Oh God no*

*Participant 6: You see that's the thing...*

*Participant 7: But to maintain ... if your contract is reviewed you should be, you'll be asked to actually put one in. So there would be no funding, definitely not*

*Participant 6: But think about what would you lose? If you take out a half an aisle of stuff ... stock that might move quite well. You have to move a whole shop around*

*Participant 7: Well I suppose, moving a shop is expensive but I can't imagine the HSE ever giving us funding per square meter of treatment room. I don't think it would stack up, you know"*

Amongst pharmacy owners there seemed to be an acceptance that consultation areas would be required under the incoming regulations. As a result many had tried to incorporate such areas in their shops:

*Well what we did is we have cleared off a certain area at the back of the dispensary. And we got a screen and made it into a little private area. [4:1]*

Other facilities in the pharmacy such as weighing scales and information terminals were considered to help in the provision of health promotion:



*We've one of those, you know, health info machines that people can go to and search their topics... they love it. And they print out stuff and they reckon they're very good. And get them thinking about different things. [5:4]*

#### **4.4.3.4.8 Ownership of the pharmacy**

There was debate within each of the focus groups about how ownership of pharmacy affected a pharmacist's ability to engage in health promotion. Some pharmacists felt that working within a chain of pharmacies made it easier to engage in health promotion activities:

*I'm in a small chain and I think that allows us to do what we do. [4:1]*

Other pharmacists felt that independently owned pharmacies were more likely to be better connected with the local community and would have more incentive to develop health promotion:

*Well people who own their own place, they know, they appreciate what their customers do for them. They know that they are the bread and butter so you're going to work hard to keep a hold of them. They build a customer relationship. If you don't you're gonna fold. [5:6]*

A counter argument to this was that, due to financial pressures, some independently owned pharmacists might not be as ethical as they should be:

*Independents are more money guided... I think the groups are maybe slightly more ethical. [3:2]*

However, others felt that some chains less likely than independents to invest money in health promotion:

*Your company chooses to use the money that it makes to buy more pharmacies... I choose to have one pharmacy and to use the money I make from the pharmacy to put in services. [3:7]*

Overall it seemed that there were features of both type of ownership that facilitated health promotion. Pharmacists who are pharmacy owners may know their customers better and have control over how money is reinvested in their business for the development of additional services. Pharmacists working in chain pharmacies may feel less commercial pressure to generate sales and may benefit from central support for the organisation of events.

#### 4.4.3.5 Barriers

Although the perception of pharmacy and the structure of pharmacy remuneration were the most frequently mentioned barriers, six other barriers were also raised (Table 4-8).

Factors which act as a barrier to health promotion									
Focus Groups	Perception of pharmacy	Structure of pharmacy remuneration	Other healthcare professionals	Commercial conflict	Time & other duties	Policy	Inconsistency within the profession	Training & confidence	totals
FG 1	14	5	1	8	12	1	0	18	59
FG 2	9	4	0	6	2	1	3	3	28
FG 3	3	14	7	9	2	6	11	2	54
FG 4	12	13	8	2	10	5	5	0	55
FG 5	10	8	12	3	1	13	6	0	53
<b>Total</b>	<b>48</b>	<b>44</b>	<b>28</b>	<b>28</b>	<b>27</b>	<b>26</b>	<b>25</b>	<b>24</b>	<b>249</b>

Figures indicate the number of times each factor was mentioned by each group  
Please note: These quantitative representations of qualitative data are only intended to provide the reader with insights into the nature of the conversations and can not be interpreted to signify the relative importance of issues.

Table 4-8 Summary of the factors which act as a barrier to health promotion in pharmacy

##### 4.4.3.5.1 Perception of pharmacy

One of the main barriers to pharmacists' working as health promoters was the way in which they were perceived by the general public and other stakeholders. They felt that many viewed them as commercial businesses rather than healthcare settings:

*Well I suppose pharmacies do have, they've got the make up, they've got shampoos, they've got all the other things with the pharmacy so it's not viewed as a health care profession. [2:3]*

*We are a shopkeeper with a degree. That's the impression I get. [4:9]*

As a result, pharmacists felt that sometimes they were not respected as much as other health care professionals:

*Sometimes they just don't respect your opinion as much as they would have other health care professionals. [2:2]*

The fact that some pharmacists were confined to the dispensary was thought to impact on the views of the general public:

*I think as well that in independent pharmacies where there is only one pharmacist ... and if they don't have technicians, the pharmacist is stuck in the back counting tablets and sticking labels. [4:1]*



It was also felt that people without long-term conditions did not understand the role that pharmacists played in healthcare:

*There are often the people who are just getting an antibiotic, not on any long-term medication. You don't need to go through the condition with them. They may not have so many questions except for the fact that .... "Can I drink on these?" Because the doctor will have said take one three times daily for a week, and that's it, or if you start asking them if they have any other questions they get a bit taken aback that you might actually know what the tablets are. [4:2]*

In general, pharmacists thought that younger people did not understand the role of the pharmacists as a health care provider:

*People who that I find have the skewed image of pharmacists are the ones who aren't willing to admit that there is anything wrong with them. Why should they go to the pharmacist? If they are sick they'll go to the doctor and they'll bring their prescription to get filled in the pharmacy and that's it. "Why are you telling me what to do with these tablets? The doctor told me already". These are... they would be, young, relatively young people. The elderly people are kind of willing to listen and realise that we have something to say. [4:9]*

*Probably the young people now, they won't stick to the one pharmacy, they'll go to wherever is convenient to them at that time. So they're not building up a relationship. [5:4]*

A pharmacist who had worked in Northern Ireland explained how this difficulty had been addressed through health promotion campaigns which were organised by locality groups, where pharmacists had delivered talks within the local community, such as GAA clubs, darts clubs and schools:

*There is that thing of bringing it out to the community as well. If you go and do a talk or in a school or something like that, you know, people can see that you are very approachable, and then go back. Young people especially. They feel more at ease to come in and chat to you. [4:7]*

There was a feeling that any media coverage of pharmacy was normally related to the financial aspects of pharmacy and not the healthcare aspects and that this eroded the perception of a healthcare provider.

*You have your reliable customer and they love you to bits. There in and out and they've come to you before. But all the press. It's all running down chemists and what they do and they're just money grabbers left right and centre, wanting more and more and more. That's the way we're seen generally. [5:5]*

Overall there was agreement that whilst the pharmacist's role as a healthcare provider was acknowledged by people who had regular contact with pharmacists, many others did not understand that role. As a result pharmacists concentrated their efforts on people who understood and appreciated their role:

*I think my time would be better served you know trying to promote health to people who are actually to ready to listen to it, do you know what I mean. [1:3]*

One pharmacist commented that pharmacist's own perceptions of what their job entailed was different in Ireland to Northern Ireland:

*I think that a lot of the pharmacists in the North ...they don't have an ambition to own their own shop, they accept that they work in a pharmacy for someone else, and they see themselves as more ... I'm probably going slightly off on a tangent but I think it's just a different perception.. you know of what the pharmacist is. [4:1]*

It was felt that positive promotion of the pharmacist's role was required with the general public to overcome this barrier:

*I don't think we can expect people just to know that we are health promoters, we need to take responsibility to promote ourselves. [1:1]*

There was also considerable discussion about the perception of pharmacy at a government level, and this is discussed in section 4.4.3.5.3.

#### **4.4.3.5.2 Structure of pharmacy remuneration**

Lack of remuneration for health promotion within community pharmacy was considered to be another significant barrier. Generally, pharmacists agreed that they did not seek to make any profit on the delivery of services but that at a minimum they felt that they needed to be reimbursed for costs incurred during service delivery:

*You have to be covered for that, you know ...just say if you are covered for what you pay, that's all. No mark up, no profit, no nothing, just an allowance. [4:9]*

Pharmacists described how their involvement in health promotion incurred cost to their pharmacies:

*[We're] losing money on it because we have to provide extra cover. [4:1]*



*Quite apart from the ethics and the morality of it, it goes against commercial common sense. [3:1]*

Very little discussion was had about the possibility of patient paying for services but where it was discussed pharmacists didn't think that patients were likely to do so:

*But I don't think anyone will pay for it....why would you bother. [1:6]*

Pharmacists felt that if they did start to deliver health promotion services without reimbursement this would make it less likely to ever get reimbursement in the future:

*The government are going to say "Why should we start paying for it now, when they're doing it for free?" [3:2]*

At the time of this study, fees for dispensing prescription items provided the bulk of a pharmacy's income. This "fee per item" reimbursement structure was unanimously recognised as a disincentive to involvement in health promotion:

*The best commercial investment is to fire out as much as the stuff as is possible. [3:1]*

*It's my belief that until we change the payment schemes in this country we haven't a hope of getting involved. [3:7]*

Many believed that the government considered that pharmacists already received too much money:

*The perception at the very top is that we get far too much money for doing far too little. Full stop. [5:7]*

Most pharmacists predicted that not only were the government unlikely to provide any additional investment for health promotion, but they were also likely to try to reduce existing payments to pharmacists in the near future:

*I think the government is going to try to cut our margins, our fees way back, and put a lot more pressure on us ... I think it's an easy target for them, because they can't really handle the doctors that well, so. And then if we are going to be cut back, we're not going to have the staff, or the time to do anything else. [3:1]*

*A lot of pharmacies would go out of business if there were, if those profit margins were to go. And then on top of that to finance our own extra [services]? [4:9]*

One pharmacist observed that as a result of these financial pressures many of the health promotion campaigns run by pharmacies concentrated on topics that generated revenue:

*Sometimes we pick the areas that are more lucrative, like we pick cholesterol as one, and that's a really easy way of doing health promotion, and there are a lot of things that we can sell as a part of our health promotion, whereas we wouldn't tend to pick something like say stress management, as quickly, because it's not something that we can make money on. [2:4]*

This was defended by others in the group, who argued that fundamentally pharmacy was a business like any other and had to be financially viable:

*Any community pharmacy, we're all a business, everything that we do, while it will have benefits to the person's health ... mostly what we do is to make money, isn't it. [2:1]*

*A lawyer, a solicitor, an engineer ...no-body goes out and does anything for nothing. At the end of the day you have to get paid. That's what you're there for. [2:3]*

Examples from other countries showed that remuneration was a facilitating factor:

*Well, there are pockets of money from the boards, we used to have groups like this. Every area had locality groups and then you kind of defined needs in your area and they'd come up with something to fulfil that. [4:10]*

Most pharmacists felt that financial support to cover the costs associated with delivering health promotion would facilitate further involvement in the area:

*"I think community pharmacists wouldn't look for any money as such, just to maybe cover our costs, you know. That's all. [4:1]*

It was felt that profits would come from resultant goodwill and loyalty of customers:

*If you look after your customers and go the extra mile, it does generally, in an era of increased competition, it does help them to stay with you, and it's good for business in the long run as well. [3:1]*

It was generally felt that financial support to cover costs should come from the government or HSE:



*If there was a partnership done...between the pharmacies the HSE ... it would be in the HSE's interest ...it would actually reduce people going to the doctor because people are more aware of ... lifestyles. [5:9]*

#### **4.4.3.5.3 Policy**

Another major barrier to pharmacist involvement in health promotion was a lack of government policy in the area:

*Anytime that there is any healthcare within the government, we are always excluded, so that's the number one. [3:3]*

It was perceived that there was a lack of focus on pharmacy within the department of health:

*I think fundamentally the problem is the Department of Health doesn't a division for pharmacy. [3:1]*

*The other thing is that the chief pharmacist in the Department of Health hasn't been replaced. [3:6]*

*Lack of policy. It has to come from the Department of Health down. I don't think it's coming. The direction isn't coming from them... unless they change their views. [3:8]*

As a result many pharmacists felt that they had no means by which to influence policy relating to pharmacy:

*I suppose I'm being cynical and thinking about how legislation has changed for pharmacy, it's been downward. It's imposed upon us. [5:7]*

Without pharmacist input into policy development, it was assumed that there was little understanding of the pharmacist's potential contribution to health promotion:

*I don't think it's seen by government as health promotion...I don't think the government would perceive ... the number of pieces of free advice that we would give out. [5:7]*

When it was suggested by a pharmacist in one of the groups that health promotion in pharmacies could be developed with the support of local coordination within the health board, this was met with scepticism:

*It wouldn't be easy to get...I'd imagine now, with my dealings with the health board, it wouldn't straightforward to get them to agree to it in the first place, let alone somebody to liaise with pharmacists. I couldn't see it. [3:7]*

A pharmacist in another group thought that it would be difficult to develop the health promotion agenda for pharmacists without consultation with the government, and this was closely related to the issue of remuneration:

*I suppose there should be no national programme for pharmacists for health promotion until there's consultation and remuneration. [5:7]*

This pharmacist suggested that more tangible evidence of the benefit of pharmacist interventions was required. He explained that how the IPU had, at one point, asked pharmacists to document their interactions with patients, but that not many people had complied with this request:

*Qualitatively to have evidence from one or two pharmacists, that's quite handy, but they (The IPU) had nothing substantial enough to show that out of 400,000 visits today there have been 12,000 that have resulted in 33000 not going to a GP and maybe 10 not going to hospital eventually. I think the HSE are more into seeing figures. [5:7]*

#### **4.4.3.5.4 Inconsistency within the profession**

There were many examples provided to demonstrate inconsistencies in approach to health promotion within the profession. It was felt that advice was not always consistent between pharmacies:

*You'll get one piece of advice from another, and the opposite from another. [5:5]*

Whilst some pharmacists refused to sell certain products on ethical grounds other pharmacists were prepared to sell such products:

*If they don't buy it off you, they'll buy it off somebody else. [3:1]*

It was felt that there was a lack of consistency in standards between pharmacies:

*I think as well in a lot of places, maybe they [customers] don't get a great experience, you know, and there are a lot of places where they go in and they can buy whatever they wanted and they never get asked a question. [2:2]*



One individual provided examples of situations where pharmacists were prepared to provide medications without prescription:

*There's a place, not to mention names, not too far from here...where I worked for a day or two and people were coming in without prescriptions, buying benzos. And I turned at the door, and I stood and said, "sorry", because I had four people before twelve o'clock and I was like, "prescriptions?" And they were like "ah no it's grand the man looks after me", and I'm like, "yer man's not here today, I'm sorry". And they're like, "ah no, but he owns the shop", and I'm like, "yer man's not here today". And that was it. It's the difference in standards. You'd (nodding towards the pharmacist sitting opposite) only give a week **with** a prescription; this person is giving a **month** at a time without even a prescription. And if we don't standardise pharmacy across the board, health promotion isn't going to help either. [3:3]*

There were also inconsistencies in how pharmacists managed their business. It was felt that whilst some pharmacists were prepared to reinvest business profits to develop the area of health promotion, other pharmacists were only interested in generating profit:

*A lot of people got into pharmacy for money, pure and simple. They weren't interested at all except for the money. [5:5]*

In particular locums were cited as a group of pharmacists who were not interested in developing the health promotion agenda:

*They [locums] go in, you know, doing nothing, sit on the chair, sit on the stool whatever. Leave the shop, no responsibility. Grand locum. [5:5]*

This lack of interest on the part of locums was mentioned several times. However, as the passage below shows, even if a locum did show interest in making health interventions, some pharmacists did not feel it is appropriate for them to do so:

*You can educate people but not when you are doing a locum ...I had a pre-reg a number of years ago who worked with me, and he went back to work in a rural area and he rang me up and because we had done a lot of methadone he said to me, "I'm running a clinic down here for the local addicts", and I says, "Oh, what is it"?, and he says "codeine linctus". He says "Buckets of it....buckets of it we dispense. What'll I do?" And I said "Absolutely nothing. You're not going to be able to change it, and if you refuse to dispense it to them you will have more problems. If you are just working there for a while, leave a note to the pharmacist at the end of the day and say there's a drug problem in the town and maybe he might like to look someway into sorting it out, but don't try and sort it out yourself". [3:7]*

The inconsistencies in the profession were thought to be driven by commercial competition:

*Getting groups of pharmacists together in the one group would be very beneficial, you know to work together on health promotion as opposed to separately...I think we're too much in competition with each other. [4:1]*

In focus group 5 it was suggested that payment for services might result in greater consistency across the profession:

*It can be hard to get consensus among any group, in particular among pharmacists. We're no different to any other profession. I'm not down on pharmacy. It would be hard to get complete consensus unless it was monetarily driven. If there was money eventually at the root of it, you would certainly get a higher uptake. [5:6]*

It was commonly expressed that greater coordination within the profession would lead to consistent standards, with the phrase "singing off the same hymn sheet" being used by a number of pharmacists:

*I'd like to think that if we did have a role out of it, for anything, say health promotion, there should be some sort of a meeting or a gathering of all pharmacists, and have us all singing off the same hymn sheet. (General agreement) All the same. To get rid of the problem where all pharmacists are giving different information. [3:8]*

#### **4.4.3.5.5 Relationships with other healthcare professionals**

Many pharmacists raised concerns about the lack of coordination with other healthcare professionals:

*At the moment, there's no real connection between a lot of the healthcare professions. [1:1]*

Nurses and dieticians sometimes facilitated health promotion events within pharmacies, but these were usually sponsored by pharmaceutical companies. The professional with whom pharmacists felt they had most contact was the GP, but many described how GPs viewed pharmacist involvement in Health Promotion as encroachment of their territory:

*Yeah. And no matter what way you put things to certain doctors, they feel like we're encroaching on their territory. Big time. [5:5]*



*[We need] agreement with other healthcare professionals, like there is no point in you giving health promotion and then the GP saying "that's my job, why are you doing it?" We need support from other healthcare professionals. [2:4]*

Some pharmacists felt that GPs felt threatened by pharmacist involvement in screening programmes:

*Yeah... they almost feel like their time, well their power is being removed or something. [3:4]*

The normal method of engaging GPs was through discussion of screening programmes before they were introduced:

*We went to all the doctors in the locality to say that we were going to do the testing. [4:5]*

One pharmacist described a situation where he had discussed a new screening programme with local GPs, but had subsequently encountered problems when he referred patients:

*I went around to the doctors, when we were rolling this out, explained the situation. What we were doing. All of them were honky dorey, except for one who legitimately said he had concerns, and we sat him down, and chatted them out, and all the rest.... the rest of them, no complaints, all happy as Larry, to your face. But when the patients come in afterwards with the information then they give out to the patient that it was done in the first place. And they'd take it out on the patient ... And then the customer comes back into me. [5:5]*

Many pharmacists couldn't understand why GPs would have an issue with screening services, particularly as they saw their role in this area as a means by which they could increase the number of people who were attending the GP:

*You would kind of suspect some of them would be kind of resistant to it, but then at the same time, you're not really doing them out of a job, because you are more or less feeding people back into them... a lot of people wouldn't have gone to the doctor in the first place... ...We were only doing the screening so they were still going to have to go to the doctor and they were being referred to the doctor for the actual diagnosis. [4:5]*

One pharmacist suggested that part of the problems with GPs might be partially due to pharmacist own attitudes:

*If we have a holier than thou attitude with the GP, the GPs equally will respond to that with an equally holier than thou attitude. [5:7]*

Another pharmacist felt that the situation was aggravated by the payment scheme for doctors:

*It's not just **our** payment systems. It's how the doctors are provided for as well and they'll just stab us in the back. [3:7]*

A pharmacist who had worked as a hospital pharmacist described how the pharmacist-doctor relationship was very different in hospital, and this was attributed to the fact that the professions worked together:

*They (doctors) wouldn't start a ward round until one of us (pharmacists) were there ...It actually saved the bacon for the juniors. But that's just, that's just the attitude again. I think if we're working with them, in a closer environment, those attitudes can get broken down. [5:7]*

Pharmacists who had worked in the UK felt that they had a better working relationship with other healthcare professionals:

*I was so spoilt, because I was so oblivious to all this. Like up the North it's absolutely incredible the way it's run. We were right beside a GPs surgery, like they work so closely together. GPs and pharmacists actually work together. It's amazing. [3:4]*

#### **4.4.3.5.6 Commercial Conflict**

A recurrent theme within the discussions was the potential conflict between the healthcare and commercial aspects of the pharmacist's role. One employee pharmacist complained that the majority of his time was spent as a retail manager, rather than as a pharmacist:

*I think pharmacists should be allowed to do, basically what they were trained to do. I'm a pharmacy manager, at the minute, to be perfectly honest, 60, 65% of my time is being a retail manager. 35% of the time is being a pharmacist...which I didn't train to do. But unfortunately the way the world is I have to work somewhere. [3:3]*

Pharmacy owners made the point that they too had to manage their business:

*Ah now, I have to manage too. [3:7]*

It was felt that this dual role contributed to negative perceptions of the profession, particularly if pharmacists concentrated on the commercial component of the business rather than the healthcare components. Pharmacists working in some chains criticised the



stocking of confectionary products in the pharmacy. They felt that having these products in the pharmacy compromised the health promotion message:

*At the moment they're selling huge, huge dairy milk bars, and you're there at the counter, and if you are discussing something like health wise with someone, and then they look around ...and they have this big bar of chocolate looking at them... To me it just does not make sense. [1:7]*

Some criticisms were also made of certain weight control products which were stocked in pharmacies:

*I don't know as professionals how we can have these, because I think it is ... fair enough, big margin and all the rest, but I couldn't do it...I couldn't physically do it. I couldn't go out to a patient and say, " hey, look at this new product and you'll lose two pounds . [3:3]*

*It's not ethical to sell them. [3:4]*

Employees in particular felt that they had little control over choices to stock such products in pharmacies:

*You've [Nodding to Pharmacy owner] got the choice. My boss sticks it in the shop and he goes, look, you know, there's nothing wrong with this product, it's not proven. [3:3]*

Although they had no control over whether such items were stocked, some pharmacist reported dissuading patients from buying such products:

*"I know they've [employer] lost money over me being there, but I couldn't turn around to someone and say I think they're great. I just say no, I think they're rubbish ...because at the end of the day, that's what I'm there to do. To provide information and at the end of the day you're getting paid to make a professional decision on something, not what somebody else thinks you should tell them. [3:4]*

This was generally met by agreement by the rest of the group.

#### **4.4.3.5.7 Time and other duties**

Pharmacists sometimes cited time as a barrier to health promotion.

*You don't have time to talk to someone for as long as you would like. Or to do the promotion days without cover. [4:2]*

Generally pharmacists felt they had time for short conversations with customer, but longer consultations might not be realistic:

*Fair enough, if you're counselling a patient on their meds well that's fair enough, you put five or six minutes aside and you go through them with them, but if you are to go through someone with like you know a set out health promotion like protocol you don't have 10, 15 20 minutes to go through this with someone. [1:5]*

Many felt that this was due to their involvement in dispensing:

*Sometimes there would be time constraints - you know, if it is very busy and if there are prescriptions piling up you know it's very hard, to tell everybody else to wait and to talk, to give as much time as you might like to. [5:4]*

Administrative paperwork within the pharmacy was also considered to be a major burden on pharmacist time in two of the focus groups:

*The hardship [scheme]. The paperwork that goes into it. Faxing this off. And getting the doctor to write certain things in a letter and on a prescription and the whole lot, ... it's horrendously time consuming. [4:6]*

Pharmacists felt that this was less of a burden in other countries:

*The New Zealand guy who is with us this week. All that they do at the end of the month is make a CD-Rom and send it in... there is no paper work or anything like that. You know. They do a CD-Rom, and he said he couldn't get over the paperwork.. Even just doing the psychiatric prescriptions. You'd end up on it [psychiatric scheme] yourself. [4:9]*

This barrier of time was often linked to staffing levels:

*[We need] better ORL (Optimum Resourcing Levels), so we can free ourselves up so that we're not in the dispensing role all the time, free us up to be able to do a lot more, advising patients on healthy lifestyles rather than worrying about well actually there are 12 scripts hanging up in there. [2:2]*

One of the pharmacists who had previously worked in the North of Ireland commented that the issue of time may be linked to the structure of the health service in Ireland. She commented that patients in Ireland were less likely to visit the doctor than in Northern Ireland, due to private GP fees. This resulted in greater pressure being placed on pharmacists:



*And the pharmacist is overworked. This is why we are under such pressure. In the North the doctor does the work. People go to the doctor... because they didn't have to pay, which was beneficial to the pharmacist, in the sense that they didn't have they type of pressure that we have down here. They had time to put into clinics and had time to do smoking cessation. Pharmacists down here don't have that time. They're trying to look after people who should go to the doctor and who won't pay to go to the doctor. We just don't have the time. I spend my day trying to encourage people to go to the doctor because they are in looking for an emergency supply and the scripts are out of date for three or four months and they won't go to the doctor. And I spend my day battling with people..... explaining to them that they have to go to the doctor. [3:4]*

This demonstrated the impact of private healthcare on the role of pharmacists in Ireland.

#### **4.4.3.5.8 Expertise**

Whilst most groups generally felt that they had adequate expertise to deliver health promotion, the pre-registration pharmacist focus group felt that the nature of their training acted as a barrier to their health promotion role:

*It's not exactly our area of expertise ...we're trained in medicines, drugs etc, not really like lifestyle or anything. [1:2]*

*Our whole profession is based on the fact that we are medicines experts, as opposed to health promoters. [1:4]*

The other groups felt that their expertise was adequate in general, although they felt it was important to have training on specific health promotion programmes if they were to be introduced:

*I think you need the confidence and training in the area that you are going to promote. You have to be confident that you can go out and do it. That's important. [2:3]*

Training would be required in specific topics, such as depression and obesity, which were felt to be more difficult to tackle due to patient sensitivity. Communications skills were considered important for patient interactions regarding health promotion:

*There's a knack. Some people ... you aren't able to explain anything to them ...you know particularly obnoxious and difficult to deal with, there's a knack of dealing with them, in such a way that you're not insulting them, but you're sort of getting in at their level. [3:1]*

This theme of training was linked with the theme of consistency, with pharmacists frequently suggesting that provision of coordinated training would result in greater consistency between pharmacies

#### **4.4.3.5.9 Other barriers to health promotion**

Although most pharmacists reported having adequate space to facilitate greater involvement in health promotion this was not the case in all pharmacies. In some cases space and privacy still represented a barrier to health promotion:

#### **4.4.3.6 Areas of Health Promotion Identified by Pharmacists**

In general pharmacists felt positive about engaging in health promotion. They felt this could be done on a day to day basis, as well as through coordinated health promotion programmes. They identified a wide range of areas in which they felt they could have increased involvement. These included management of chronic diseases such as diabetes, asthma and cardiovascular health; screening programmes for blood pressure, cholesterol or blood glucose; medication compliance; smoking cessation; weight loss; children and baby health; sexual health; sun care; nutrition, exercise and lifestyle advice; awareness of cancer (breast, prostate, skin); women's health; men's health; back to school & head lice advice; seasonal healthcare; first aid; skin problems (eczema, psoriasis); pregnancy care; osteoporosis; Alzheimer's; needle exchange; mental health; HRT and education of families of patients. One pharmacist also discussed the possibility of providing education on drug awareness in local schools.

#### **4.4.3.7 Closing Comments**

In general, pharmacists were positive about current and future involvement in health promotion:

*We are in a good position to promote health and to educate the community on health issues and really I think the willingness of pharmacists is obvious from this small group of people and I think would probably translate across the country. [4:6]*

Overall the conversations were quite balanced, with similar numbers of references to the facilitators and barriers. In their closing comments, many participants expressed their willingness to increase their involvement in the area of health promotion, but generally followed this with a caveat that changes were needed before this could happen:



*Obviously we do have a big role to play and I think we do a lot of it every day anyway, it's just kind of getting recognised for that and maybe coordinating it so that we're all doing the same thing and focussing on the same thing. [5:3]*

*We have to go down the road of more health promotion to show our worth. It's just a matter of getting our image right and getting payment for the services we actually do provide. That's the biggest challenge. [5:5]*

*I think that there's a lot of potential there, there's a lot of good will amongst pharmacists, but I think fundamentally the problem is the department of health doesn't a division for pharmacy ...so I think it's going to be tricky. [3:1]*

Most of these comments suggested that pharmacists felt limited in what they could do as individuals to address these issues.

#### **4.4.3.8 Weight Control in Community Pharmacy**

Pharmacists were asked to consider the issue of weight control as a specific health promotion area. Some reported providing advice on diet and exercise whilst dispensing prescriptions for conditions such as hypertension, cardiovascular disease or diabetes, and in particular when dispensing medications such as Lipitor<sup>®</sup>, Reductil<sup>®</sup> or Xenical<sup>®</sup>:

*Exercise and weight control is very important when you have a cardiovascular condition or when you have diabetes, and its important to say that to them. [1:1]*

*Particularly if someone new starts on a statin, whether they understand what their cholesterol levels were, eh what they're aiming for. Whether they've been put on a diet before, whether they've even been given a diet sheet....to start. Quite a number of people haven't been given a diet sheet but they've been put on statins anyway, so those kinds of things. [3:7]*

All groups discussed the sale of VLCDs in pharmacies, with Lipotrim<sup>®</sup> being specifically mentioned in all groups. This was one area where there were widely conflicting viewpoints:

*Don't mention Lipotrim... No offence to anyone who sells that stuff in their shop but... I don't know has professionals how we can have these. [3:3]*

*Is the idea not to get people to eat healthily rather than eating these kind of things? [4:8]*

*The Lipotrim programme ... really it's very good. You have to have your body mass index taken and you have to come in every week to get your supply and the pharmacist actually checks you to make sure that you are taking it properly that you're not cheating and if you do cheat you are taken off the diet. It's very, very strict and actually I think they test your urine in some cases to make sure. [4:10]*

*A lot of very overweight customers have a lot of great success with it. And it helps with Blood Pressure. [5:3]*

One pharmacist felt that the way in which the service was delivered varied between pharmacies:

*Some chemists would be very strict on it and say you have to be above your certain BMI to go on Lipotrim; others not so, to be honest with you. They see the money. You have to go to Lipotrim training before you get the product into your store ... it is very sales driven ... advertising this and have it block merchandised and all this craic. A real sales push. [5:5]*

Some pharmacists expressed concerns that they were not always fully informed about dietary products which were for sale in their pharmacies:

*Those dietary ones, we have no training at all on them, I don't even know what's in half of them, and half of them are in magazines and you're getting asked for them, I don't know. [2:5]*

*Complementary medicine... That is a tricky one in a way because you know you are there and these people are already sort of on medication do you know, and they are looking for something else and it's almost as if, I find it a bit of a grey area about giving advice. [4:8]*

Regardless of the views on the sale of dietary products, most groups described how they served as openings to conversations about weight control:

*It's an opening, a person comes and ask you about it so you're not actually going out and actually approaching the person and saying can I talk to you about your diet, do you know, it's an opening for you to get to them. [2:4]*

Some pharmacists also mentioned that having weighing machines in the pharmacy made it easier to initiate conversations with customers. It was frequently suggested that without the opportunities provided by the dispensing of prescriptions or patient requests for information on dietary products, pharmacists would find it very difficult to proactively raise the issue of weight with people. This was generally due to a fear of insulting patients:



*If they're there asking for advice on weight loss or diet, then ok, but if they weren't particularly looking for it, then they wouldn't take it too well. [5:3]*

When asked to consider how pharmacists might increase their involvement in the area of health promotion, a range of options were discussed. These mainly focussed on making information available to customers:

*You could put up one of those little posters like saying are you worried about your weight, ask your pharmacist, or something and at least if they want to say. [1:1]*

*Have health promotion leaflets available. [2:4]*

*Put a food pyramid in the window or you know just put some a poster in the window and leaflets on the counter and you know take all the staff out and you know educate them about it and just make it a conversation. [4:1]*

However some participants questioned if pharmacy would be the appropriate setting for this type of health promotion:

*Weight is something that there is so much focus on outside of the pharmacy that maybe, I think that one ... ok, if someone approaches you then definitely by all means, you know, but otherwise... [1:3]*

*I don't think it's going to be that practical for us. I genuinely don't. It's a hard one. [5:7]*

*If you're ready to admit that you've a weight problem and you want to find out about it, you'd be at a weight watchers clinic, or be in a group somewhere else. [1:2]*

As with other topics in health promotion, pharmacists felt that training would be needed to ensure consistency of information provision.

#### **4.4.3.9 Phone Conversation after the Focus Group**

At the end of each focus group, pharmacists were invited to make contact with the researcher if they wished to submit any further comments on the topic of health promotion. One contributor did so. This conversation was recorded with the permission of the pharmacist.

This pharmacist said that she had found it difficult to “*think of things there and then and come up with comments off the cuff*” during the focus groups but she had thought about the topic a lot since. Her definition of health promotion differed from what had been offered at the focus groups.

*“The other night we were concentrating on diabetes screening and cholesterol testing, but to be honest, they are people that are already sick. They already have experienced secondary care in the health service. The pharmacist has a real role to play in apprehending people in the primary care setting. Getting them **before** they get sick and before they take up hospital beds”*

She had previously worked in Northern Ireland, where she felt that the health promotion role of the pharmacist was very different to that in Ireland:

*“The profile of the community pharmacist is very different down here than in the North. In the North the community pharmacy is the focal point of the community and that’s the way it should be. Down here pharmacy just seems to be another shop on the high street”*

“Free advertising” of the pharmacist’s role by the government helped to influence public attitudes, as did “*multi-professional local social health and care groups*”. She described health promotion interventions that were based within the community (outside of the pharmacy setting), supported by inter-professional collaboration and targeted at sectors of the population who required health interventions.

The areas that she identified as being potential areas for health promotion were very different to those expressed in the focus groups:

*“I works in [name of town] and I see a lot of black people and foreign people. They are coming from countries where there would be no awareness of health promotion at all. They are coming from communities where they may well be neglecting their health and they are not aware at all of health promotion measures. It can be hard to communicate with them. A lot of the older people can’t speak English and you are relying on the younger generation coming in and translating for them. But they are an ever-growing section of people and there is no reason why we can’t work with them”*

However, she felt that a coordinating body was required and felt that reliance on pharmaceutical company support was limiting the potential of pharmacist involvement in this type of health promotion intervention:

*It would be good if it didn’t have to be endorsed by the multinational companies. It would be better for the perception by the public. You don’t want*



*them thinking that we have a commercial interest. There is a perception that pharmacists are driven by money. I think it's better if it's coming from the government or a health profession. We'd have more credibility.*

She was critical of the government's attitude that pharmacy was too commercially driven:

*They criticise us for not doing anything and then when we use the multinational companies they think it's ok to slag us off.*

She said she was delighted to be invited to the focus group, because it had been her first chance to meet a group of pharmacists in Ireland. This was different to how things had been in Northern Ireland, where she regularly met with other pharmacists through locality meetings:

*I felt a bit lost when I came down here first. It was more of a challenge in the north. Here, I feels it's just a bit more the business side of things. I'm getting quite frustrated and am wondering if I should go back. I could do so much up there[in Northern Ireland]. I worked as prescribing support to one of the GPs up there... Now that I'm here I feels that I'm just being left behind.*

## **4.5 Discussion**

This study was the first qualitative investigation of pharmacist attitudes to health promotion in Ireland. Insights were provided into how pharmacists engaged in health promotion, and factors which facilitated and prevented involvement in the area were identified.

### **4.5.1 Definition of Health Promotion**

In general pharmacists provided a somewhat narrow definition of health promotion, with emphasis on health education targeted at people who were already ill or who were at risk of developing illness. The examples provided generally supported this definition with much of reported health promotion targeted at existing patients or customers and delivered whilst simultaneously performing other duties such as dispensing prescriptions or selling products. This finding was similar to that of Howarth et al. [242] who concluded from an international literature review that the practice of health promotion in pharmacy was often poorly defined and that the profession only embraced some of its facets. Anderson et al. [10] also noted that whilst pharmacists were generally positive about their role in delivering health promotion activities, in practice their approach tended to be reactive rather than proactive and centred around the use of medicines rather than a more holistic view of health. This narrow approach to health promotion has been criticised [243] and it

has been suggested that pharmacists should extend their remit in health promotion and public health from the micro-level, focusing on the individual determinants of health, to the macro level, focusing on the wider social determinants of health [244]. Although such an approach would be in keeping with the true definition of health promotion [1], the findings from this study suggest that this may not be realistic in practice and the current approach, although narrow, represents a pragmatic way of delivering health promotion within current constraints. Paluck et al. suggested that it was because of the time constraints of community pharmacy practice that pharmacists targeted their efforts toward clients who are at greatest risk [245].

#### **4.5.2 Factors which Facilitate Health Promotion**

One of the consistent factors mentioned by pharmacists as a facilitator to the delivery of health promotion was interaction with patients and customers. Repeated reference was made to the fact that pharmacists enjoyed their interactions with people and particularly valued the relationships that they developed with customers through regular contact. Dispensing prescriptions and selling products acted as facilitators not only by providing opportunities to deliver health promotion messages to patients but by also helping pharmacists to feel justified in discussing health related issues with patients. For example some felt that it was their “duty” to discuss lifestyle issues with a patient who was collecting a prescription for cardiovascular medications, but did not feel that it was their place to raise such issues with other customers. Many were concerned that they would insult people by proactively raising sensitive issues, such as weight, if advice had not been sought in this regard. This indicated that some training may be required to enable pharmacists to make opportunistic interventions, but also emphasised the importance of using existing pharmacist-patient interactions as facilitators to health promotion [246, 247]. In general, pharmacists felt that people who regularly accessed pharmacist services appreciated the pharmacist’s role in health promotion and that it was therefore logical to target health promotion interventions at these people.

Training and coordination support were also considered facilitators of health promotion, and the importance of these factors has been consistently demonstrated in literature. Coggans et al. demonstrated that the establishment of a health promotion facilitator network in Glasgow, in conjunction with training and support, led to improvements in health promotion activity [44]. Anderson demonstrated that a training of pharmacists in communication skills, health promotion skills and smoking cessation improved the quality



of health promotion consultations [18]. Participants in the Barnet High Street Health Scheme reported that as a result of training they spent less time in the dispensary and more time on proactively promoting health with clients [234]. Most training reported by pharmacists in this study was accessed through the ICCPE or within chain pharmacies. Whilst this training generally focuses on the provision of information to pharmacists it does not consider the competencies required to undertake public health roles [248, 249]. Support for coordination of health promotion events for independent pharmacies was often provided by pharmaceutical companies which could potentially reinforce the commercial image of pharmacists. Although some support was provided by the IPU, these initiatives in turn relied on the input of pharmaceutical companies and patient groups. There has been no collaboration between the IPU and any government bodies, as there has been in the UK between the NPA and the Health Education Authority [48]. Pharmacists felt that an independent source of support for coordination of services would be more appropriate.

Pharmacists also reported that having space within their pharmacies facilitated delivery of health promotion. Many of the pharmacists in this study had incorporated consultation areas into their pharmacies, saying that they felt that it was likely to be required in new legislation. This has indeed transpired to be the case with the introduction of new regulations regarding the registration of pharmacy premises [250]. This contrasted to other studies, which cited space as a barrier to delivery of services [235].

Most of the facilitators of health promotion were similar to those identified in other studies and tended to operate at pharmacy level [251]. Relationships with customers, dispensing of prescriptions, sale of products, pharmacy facilities, staffing levels and expertise were all factors which could be influenced by pharmacists and it is clear that many had made attempts to exploit these facilitators. A considerable number had developed their premises to incorporate consultation areas, several indicated that they had extra staffing to facilitate development of patient services, some had organised events outside of work hours and a number had utilised external bodies to develop activities. Most indicated that they had attended ICCPE lectures in order to increase expertise and many described how they had sought support from external companies.

#### **4.5.3 Factors which Act as Barriers to Health Promotion**

Whilst interaction with patients was the most consistently mentioned facilitator of health promotion, the barrier which received most attention was the fact that many people did not

perceive pharmacists as health professionals. Many customers only accessed pharmacies to buy cosmetics and beauty products and therefore saw the pharmacy as a commercial setting rather than a health care setting. Pharmacists stated that they could not see a way to initiate unsolicited conversations on health related issues with these people and this exacerbated pharmacists' tendencies to focus their health promotion efforts on existing patients rather than the wider population.

These concerns were similar to those expressed by English pharmacists over a decade earlier [43]. Following a structured interview with 30 English pharmacists Moore et al. [43] concluded that pharmacists were under-utilised and undervalued and that agencies involved in health promotion did not appear to acknowledge the community pharmacy as a either a resource for or contributor to health promotion. Similar to the findings of this research, Moore et al. reported that pharmacists felt isolated and excluded from formal health promotion activities.

In the focus groups, pharmacists from Northern Ireland explained how they were involved in the delivery of health promotion in community locations such as schools and sports clubs. This appeared to enhance the profile of the pharmacist as a health promoter with populations who would not normally access pharmacy services. In contrast to the examples from Northern Ireland, no financial incentives or support were available for pharmacists to engage in community based health promotion in Ireland.

This raised the issue of remuneration for services. In the absence of structured reimbursement for services, pharmacists self-funded health promotion activities in a variety of ways. Some accepted that they would make a financial loss because they saw health promotion as a means of rewarding and developing customer loyalty or as a means of deriving a sense of professional satisfaction from their work [252, 253]. Others felt that income was generated through the sale of associated products, such as nicotine replacement therapy. Some relied on support from external pharmaceutical companies, and a small number charged patients for services such as screening programmes. The lack of structured remuneration and the different modes of financing health promotion had many implications. Firstly, it resulted in a variation in service delivery between pharmacies, as pharmacists invested in health promotion to different extents. Secondly, pharmacists restricted themselves to activities that indirectly generated income. Therefore, as well as acting as a direct barrier, lack of remuneration also exacerbated other barriers



such as inconsistency in the profession and reliance on commercial support which in turn contributed to negative patient perceptions of the pharmacy. It also meant that pharmacists engaged in activities that could be administered with minimal inconvenience to their more traditional role and required little financial commitment, thus leading to the narrow approach to health promotion that was criticised by Jesson and Bissell [243]. Pharmacists felt that this impacted on how they were viewed by policy makers, patients and other healthcare professionals. Although they viewed themselves as healthcare professionals who were eager to make a difference to the health of their patients, they felt that they others did not understand this aspect of their role. The barrier of remuneration was further exacerbated by the fact that pharmacists felt that developing health promotion initiatives without payment now would make it more difficult to negotiate payment for services at a later date. At the time of the focus groups pharmacists were mindful of the fact that the government were likely to introduce changes to payment structures that would result in reduced margins. This subsequently happened, with the imposition of an 8.2 % reduction in the reimbursement of the cost price of drugs by the government in April 2008 [254].

Many other studies have also identified lack of remuneration as a problem [17, 40, 41, 43, 45, 50, 51, 234, 235, 255-258]. However, in these studies remuneration has generally been found to be insufficient rather than completely absent. In the UK context, opportunities exist for pharmacists to secure funding from Primary Care Organisations for the development of pharmacy health promotion services [259]. In the Irish context, funding is completely absent, with no budget available for service delivery, locum cover whilst training or for the development, coordination or evaluation of pharmacy health promotion services within the health boards. Therefore, the issue of remuneration is likely to be a more significant issue in Ireland than in other jurisdictions.

Many of the pharmacists within the focus groups felt that the issue of remuneration was strongly linked to the lack of pharmacy related policy in Ireland. As described in Chapter 1, most Irish policy relating to pharmacy has concentrated on setting reimbursement structures for supply of prescriptions [73]. Pharmacists felt that the absence of pharmacist expertise within the Department of Health and Children reduced the likelihood of any pharmacy specific health promotion policy being developed in the short term. From the examples provided in the focus groups it was obvious that situation in the United Kingdom was very different. Pharmacists who had worked in the Scotland, England and Northern Ireland described how service development was underpinned by government policy, with

associated remuneration and support. This highlighted a difference in the strategic development of the pharmacist's role between Ireland and UK countries. Irish policy has not involved strategic development of pharmacists' roles and recent government policy has focussed on increasing competition [88] and reducing costs [260-262].

Commenting on the UK situation, Thornley commented that the strategic direction of community pharmacy in the UK was facilitated from a national level, be it through head office directing large multiples, national bodies facilitating independents and small chains or via national guidelines [263]. Although there was some evidence of activities by multiples (through screening programmes) and the IPU (a national body), there was a lack of national guidelines or policy relating the pharmacy and there did not appear to be a "strategic direction" for pharmacy.

During the focus groups pharmacists suggested that future development of policy was unlikely in the absence of evidence of the effectiveness of pharmacy based health promotion services. Indeed there has been little published evidence within the Irish context to demonstrate the effectiveness of pharmacy-led health promotion. Pharmacists felt that the government was more likely to respond to concrete evidence of benefits than to the anecdotal evidence which had been offered to date. In a review of policy development in the UK, Anderson demonstrated that establishment of an evidence base helped to pave the way for policy in the UK, with many of the political developments being preceded by high profile projects which demonstrated the effectiveness of pharmacy based health promotion [264]. In Australia, the Fourth Community Pharmacy Agreement [265] allocated \$19million specifically for research and development of community pharmacy services. In contrast, no specific budget has been made available to the profession in Ireland for research and development, thus compounding the problem caused by the lack of an evidence base for pharmacy health promotion services. Without such evidence it is unlikely that policy will be developed or that new remuneration structures will be established. As a result pharmacists are unlikely to expand the remit of their health promotion services which in turn will reduce the profession's capacity to generate evidence with which to convince policy makers. Each of these issues also impact on how the profession is viewed by the public, by policy makers and by other healthcare professionals. This suggests that the pharmacists in these focus groups are accurate in their assertion that lack of policy and research act as fundamental barriers to developing their role in health promotion.



In contrast to the factors facilitating health promotion, which operated mainly at pharmacy level, the factors which were cited as barriers to health promotion delivery tended to be factors which acted at a level higher. Policy relating to pharmacy, remuneration structures, standards within the profession and the perception of pharmacy by policy makers, other healthcare professionals and the public were significant barriers which would be difficult for individual pharmacists to overcome and would require action at a profession-wide level. The need for action at multiple levels was acknowledged in 1998 in a UK guidance document for the development of health promotion by community pharmacists [266]. This document was divided into two parts – guidance of pharmacists and guidance for other stakeholders. Pharmacist guidance included recommendations regarding the use of leaflets, types of activities undertaken, consultation areas and staffing. The guidance for stakeholders covered issues around training, accreditation, quality, remuneration, evidence based practice, information technology, role definition and marketing and implementation. More recently an Australian report also recommended that it was necessary to consider facilitators and barriers at both industry wide level and at the level of individual practices [267]. The issues which should be addressed by the pharmacy industry in the development of pharmacy services were divided into eight categories; policies, politics and perspectives; health and allied stakeholders; administrative governance and decision-making processes; resourcing and revenue flows; marketing and selling to stakeholders and consumers; industry re-structuring; non-pharmacy threats and opportunities; delivering and accelerating industry change. In their recommendations to the Pharmacy Guild of Australia, Dunphy et al. [267] reasoned that that the development of service provision within individual pharmacies would progress more effectively if an industry-wide, national change programme was implemented to provide a more supportive context for pharmacy services. The results of the focus groups which were carried out in this research suggest that similar recommendations could be made in the Irish context.

An issue which was consistently raised within the focus group was the difficulty of working with other healthcare professionals. Some pharmacists reported encountering resistance from GPs to pharmacy based services and reported that some GPs felt that their territory was being encroached by pharmacist involvement in activities such as screening programmes. From the pharmacists' point of view, many of them could not understand how this could be the case, as they saw screening services as a means of directing at-risk patients to GPs. These patients were likely to be people who would not have otherwise

attended a doctor, and therefore pharmacists felt that they were acting as a gateway to GP services rather than competing with them. The relationship between GPs and pharmacists in community was contrasted to the close working relationships in the hospital setting. Pharmacists reported that in the hospital setting doctors understood the value of the pharmacist due to the fact that they worked side-by-side on a daily basis.

A review of the literature suggested that whilst relationships with GPs can be developed at a local level, a more structured approach for inter-professional collaboration was required at a professional level. Anderson suggested that joint training between GPs could overcome some of these attitudinal barriers [234]. Dunphy et al. commented that relationships between associations representing healthcare professionals were important for a more systematic approach to build trust between professions [267]. Roberts et al. emphasised the need for developing structures at a political level to connect pharmacists and physicians across all levels, from professional organisations to local networks [251]. These studies highlight that, whilst pharmacists can build good relationships with local healthcare professionals on an individual level, a more coordinated approach is required to achieve a more sustainable co-operation between professions. Unfortunately such approaches have not yet been adopted in Ireland, with no inter-professional education and no formal structures for communication between the primary care team (including GPs) and the primary care network (including pharmacists) [63].

Some of the barriers which have been identified in other studies were not mentioned in these focus groups. A national survey of Australian pharmacists suggested that two of the major barriers to health promotion were shortage of pharmacists and a shortage of locums (63.2%) [268]. These issues received no mention in the focus groups and in fact the use of locums was suggested as a convenient means of releasing pharmacist time for health promotion. Time has also been regularly cited as a barrier to health promotion [17, 234, 235, 237]. Although raised as an issue in this study, it was generally agreed that the time would be less of a barrier if issues such as staffing and remuneration were addressed with many pharmacists stating that their time could be freed up if other staff were trained to work in the dispensary or if locum cover was provided. Keene et al. found that space was a barrier to health promotion [235], but this was not considered a major problem by most pharmacists in these focus groups. Therefore, although the traditional issues of time and space did present some challenges, pharmacists generally felt that they could find ways to



circumvent these issues. In contrast, they felt that there was little they could do to address the issues of policy, remuneration and how they were perceived.

#### **4.5.4 Opportunities for Health Promotion**

Given these barriers it is not surprising that when pharmacists were asked to identify opportunities for health promotion within pharmacy, they again concentrated on existing patient groups and did not consider health promotion in its wider remit. For some, this may have been simply due to a lack of understanding of the wider remit of health promotion. However, for others this may have been due to the environment in which they worked. This was evidenced by the pharmacist, who did understand that wider remit of health promotion as a result of her experience in Northern Ireland and who identified opportunities for developing health promotion services for immigrants but could not see how this could be done in the current Irish system. This suggested that pharmacist involvement in health promotion will remain restricted to current activities unless some of the fundamental barriers are addressed.

#### **4.5.5 Weight Control**

Many of the issues which were raised in the general discussion were replicated in the discussion about weight control. As with other topics, much of the reported activity concentrated on the sale of products rather than provision of advice. This finding was similar to that of Rieck in an Australian review of pharmacist involvement in weight control [269]. In the present study some pharmacists ran programmes associated with products as part of Very Low Calorie Diets (VLCDS). These pharmacists reported that such programmes were successful and that they enjoyed helping patients to lose weight. There was some debate about whether or not such products should be sold in pharmacies, highlighting the issue of commercial conflict and difference of standards within the profession. Some pharmacists felt that it was unethical to provide such products in pharmacy. However, their sale was defended by other pharmacists who claimed that the programmes were well controlled and resulted in substantial weight loss for patients.

A requirement for training was demonstrated by some pharmacists who admitted that although they understood the fundamentals of weight loss, they did not feel confident in counselling patients about diet and exercise. A number said that they did not have sufficient knowledge of weight control products. As in other areas of health promotion, pharmacists generally restricted proactive interventions to patients who had related medical illnesses, such as diabetes or cardiovascular disease, as they felt more justified in raising

the issue with these patients and felt uncomfortable raising the issue with people who were not patients. Many felt that the general public and other health care professionals would not perceive the pharmacist as someone who could provide weight control advice. Concerns were also raised regarding inadequate coordination between healthcare professions, particularly regarding the inappropriate prescribing of weight reduction medications by GPs.

It would appear that facilitation of a structured programme, such as that offered by the VLCDs helped pharmacists to interact with patients regarding the issue of weight control. Without this structure, many pharmacists stated that they felt uncomfortable raising the issue with patients and were not sure what to say. Development of a structured programme, without the associated sale of product, might help to increase pharmacists' involvement in the area of weight control.

#### **4.5.6 Limitations**

The findings between the focus groups were consistent and saturation was reached within four focus groups. This indicated that most of the pertinent issues relating to pharmacy based health promotion were addressed. However, bias may have been created by non-participants. It is seldom that follow up of non-participants is reported in qualitative studies which means that there may be undetected self-selection bias. In this study non-participant follow up showed that all (6) locums that were contacted declined to partake in the study, often stating that they were "only the locum". They maintained this view, even when it was explained that this study was interested in the views of all pharmacists, regardless of their type of employment. As a result of their unanimous non-participation, the views of locum pharmacists were not represented in this study. Having considered the statements that focus group participants made about locum pharmacists, it is likely that this population could offer a different view on the topic of pharmacist involvement in health promotion. Locums account for 18% of the Irish workforce [270], and it would therefore be useful to understand their views.

Bias may also have been created by the sampling method, which was aimed at practicing pharmacists. None of the participants were owners of chains of pharmacies. Yet comments in the focus groups indicated that these individuals may have had an influence on the behaviours of employee pharmacists. Their omission from the study should be considered when interpreting the results.



Ideally a consistent sampling approach should have been used for all focus groups, and the use of two convenience samples had the potential to introduce bias. Although the use of different recruitment methods for different groups within the same study was not ideal, the consistency between the findings of the focus groups suggested that the method of recruitment did not impact on the topics which were raised during the discussions. Except for the fact that pre-registration pharmacists expressed less confidence in their knowledge than other pharmacists, the views expressed in the Boots focus groups did not differ considerably from those expressed in the randomly selected groups suggesting that the issues encountered by pharmacists in the delivery of health promotion are largely unaffected by the nature of their employment. It was also noted that the use of pre-existing groups did not affect the communication process within the groups [212].

The time lapse between the focus groups was also a limitation of the study. Ideally the focus groups should have all been completed within a shorter time frame. This was not possible due to the other work commitments of the researcher. However, the topics which were raised in the discussions were consistent across each of the focus groups and did not appear to be affected by the time lapse.

## **4.6 Conclusion**

This study provided valuable insights into current activities and factors affecting further involvement in the area. It is clear that pharmacists engaged in health promotion to varying degrees, with most interventions being carried out within the framework of existing patient interactions. Although pharmacists expressed interest in increasing their involvement in the area there appeared to be little incentive for them to do so. Most of the barriers which were identified were not within the control of individual pharmacists and were issues that needed to be addressed at the level of the profession. Lack of policy, lack of remuneration, lack of consistent standards within the profession and perceptions of the role of the pharmacist by stakeholders were issues that impinged greatly on pharmacist's ability to develop their role as health promoters but over which they had little control. Despite the fact that the community pharmacies provide a potential location for health promotion it is unlikely that this agenda can be progressed in Ireland until the role of the pharmacist as a healthcare professional is recognised and developed at a policy making level. Coordination is required within the profession to document and assess current health promotion activities and to increase the awareness of the pharmacist's health promotion

role with external stakeholders. Remuneration for health promotion services also needs to be considered. The issues and opinions raised as part of this qualitative research provide a basis for further investigation into the role of Irish pharmacists in health promotion.



## **5 A study of the patient experience in community pharmacy**

### **5.1 Introduction**

In 2004, a survey was conducted by McEntee and Bradley to explore the ways in which pharmacists were involved in weight control [167]. A mail survey was distributed to 305 Irish community pharmacists with 163 being completed and returned (53.4% response rate). In the responses, over 60% of respondents indicated that they proactively offered dietary advice to patients whom they believed had an unhealthy diet. When questioned on the action taken when weight loss products were requested by customers, the majority (78.5%) stated that they would offer advice regarding healthy eating and exercise, one quarter (25.2%) stated that they would recommend a weight loss product and just under a quarter (22.1%) stated that they would dissuade a patient from purchasing a weight loss product. Whilst these were positive findings, the researchers suspected that they overestimated the extent to which pharmacists provided lifestyle advice in practice. As a result, another means by which to explore the ways in which pharmacists were involved in weight control was sought. Consequently, a study combining a questionnaire and simulated patient visits was designed and is described in this chapter.

Previous simulated patient studies have demonstrated that there are variations in the quality of counselling provided in pharmacies to people purchasing over the counter medications [271-275] although less variation was seen when pharmacists adhered to recommended protocols [30]. These studies generally related to the sale of medicines and few simulated patient studies have explored patient interactions in health promotion. One exception was a study conducted by Anderson who found that providing pharmacists with training in health promotion skills in the area of smoking cessation resulted in an improvement in counselling skills and in the advice provided to patient [18]. The study described in this chapter is the first to use simulated patient to examine how queries relating to weight control were dealt with in community pharmacy.

### **5.2 Aim and objectives**

The aim of this study was to consider how pharmacy staff responded to requests for information on weight control.

The objectives were:

- To use a simulated patient study to investigate the way in which pharmacy staff dealt with requests from patients who sought advice on weight control,

- To use a pharmacist-survey to investigate the way in which pharmacists reported dealing with requests from patients who sought advice on weight control,
- To assess the extent to which results from the pharmacist survey and the simulated patient studies concurred.

## **5.3 Methods**

Two studies, a simulated patient study and pharmacist survey, were used. A survey was distributed to the selected pharmacies in November 2005. The simulated patient study was conducted in February 2006. Ethics approval for the joint study (simulated patient and survey) was obtained from the Trinity College Dublin Health Sciences Ethics Approval Committee. The authors wish to acknowledge the assistance received from Helen Byrne, a fourth year student, in the distribution and analysis of the surveys and for her involvement in the simulated patient study.

### **5.3.1 Methods for Pharmacist Survey**

#### **5.3.1.1 Sample selection**

The 2005 Pharmaceutical Society of Ireland's (PSI) alphabetical listing of community pharmacies in County Dublin was used as a sampling frame. Hospital pharmacies and those pharmacies which catered exclusively for employees of a company (e.g. Diagio and Iaranroid Eireann), were removed before sampling, resulting in a final sampling frame of 385 pharmacies. Twenty community pharmacies in the greater Dublin region were randomly selected from this sampling frame. Random numbers were generated using a randomisation command in Microsoft Excel [239]. The survey was addressed to the "Pharmacist on Duty today" [171].

#### **5.3.1.2 Development and Distribution of the Surveys**

A pharmacist questionnaire was developed to investigate the way in which pharmacists would respond to a query for information on weight control in a community pharmacy (Appendix 5.1). This was adapted from the survey used by McEntee and Bradley [167]. The first part of the questionnaire related to demographic characteristics of the pharmacy and pharmacist. The second section related to the information sought from a patient during a consultation. This was done through tick box choices and open space for additional information. The third section related to the recommendation that a pharmacist would make to this type of patient.



The questionnaire was tested for face and content validity by piloting with a group of three practising pharmacists, and their suggestions were incorporated in the final version. This was sent to each of the 20 pharmacies with an attached letter (Appendix 5.2). A sachet of instant coffee was attached to the questionnaires as an incentive and allowed the use of a friendly tone in the letter, encouraging the respondents to complete the questionnaire as they had a coffee break. Each survey and corresponding stamped, addressed return envelope bore a code identifying that pharmacy.

After two weeks any pharmacies that had not returned their surveys were contacted and asked to do so. If they stated that they had misplaced the survey, another survey was sent, again attaching a sachet of coffee. Any pharmacy that still failed to return their survey was contacted a third time, and arrangements were made for a third questionnaire to be hand delivered and collected by the researcher.

### **5.3.1.3 Analysis of Results**

The results obtained from the completed surveys sheets were analysed using SPSS [276]. Fisher's exact test and Mann Whitney U tests were conducted to identify differences between the simulated patient studies and the survey.

## **5.3.2 Methods for Simulated Patient study**

### **5.3.2.1 Sample Selection**

The twenty pharmacies that were randomly selected in the first part of the study were also used for the simulated patient study.

### **5.3.2.2 Pharmacy Recruitment**

A letter providing information on the study was sent to all selected pharmacies and addressed to the Supervising pharmacist by recorded post (Appendix 5.3). Any pharmacists who had queries or concerns relating to their participation in the study were asked to contact the research team, but no such contact was received. Allocation concealment, which can be an issue if simulated patients are being used to assess an intervention, was not an issue in this case as no intervention was being tested and therefore the simulated patients were not expecting differences between pharmacies.

### 5.3.2.3 Simulated Patient Recruitment

Two simulated patients were recruited based on body weight. Simulated Patient A (SP A) was a 22 year old female (pharmacy undergraduate student) with a BMI of  $22.4\text{kgm}^{-2}$  and Simulated Patient B (SP B) was a 50 year old female (housewife) with a BMI of  $30.4\text{kgm}^{-2}$ . Both simulated patients signed confidentiality agreements before taking part in the study. Both simulated patients were female and had similar accents, as both were from Kilkenny. Both patients belonged to customer profiles that were appropriate for the scenario that they were being asked to enact. Neither simulated patient was aware of the existence of the fact that another simulated patient was being used in the study.

### 5.3.2.4 Development of Scenario

The scenario was developed from a real situation which was presented in practice, thus ensuring that the scenario was credible and authentic. The simulated patients were instructed to act as a customer who was hoping to lose approximately one stone (6.3kg) in weight. If asked for her reason for losing weight, each patient stated that she would like to lose the weight for a wedding that she would be attending in one month's time. The simulated patients were directed to go to the healthcare area of each pharmacy and direct their query to the person who seemed most appropriate to them from a customer's point of view. This would usually be the person standing behind the pharmacy or healthcare counter, but may have been the only person available in the shop at the time or the person who approached them asking if they needed assistance. The simulated patients were instructed to record the status of this individual (pharmacist or non-pharmacist), if known. The simulated patients did not specifically ask to speak to a pharmacist because, following observation of patient queries in a community pharmacy, it was felt that very few patients in practice ask to speak to the pharmacist specifically for such advice but instead direct their question to the first available member of staff. The following sentence was used as the opening question: "*I'm wondering if you would have anything that would help me to lose weight*". Although this could be challenged as being a leading question, increasing the chance that a pharmacist would recommend a product, the reality of practice is that when patients seek advice for weight loss in community pharmacies, it is generally done so in the context of seeking a product [277]. The opening question was the same for both patients.

A scenario brief was developed, as outlined in Table 5.1.



<b>Briefing information for Simulated Patient visit</b>	
Scenario	You enter the pharmacy and approach the person who you consider is the most appropriate to deal with your request. Open the conversation with the sentence with, "I'm wondering if you would have anything that would help me to lose weight."
Only volunteer the following information if asked for it by the person serving you	
Why do you want to lose weight?	You will be attending a wedding and you would like to have lost some weight before it.
By when do you want to lose the weight?	The wedding is next month, so you'd like to lose it by then. If asked any details about the wedding, improvise with your own information. Consider this before conducting the visits.
How much weight would you like to lose?	Approximately one stone.
What is your current weight?	Provide your own weight, as discussed in the training session
Have you lost weight before?	Yes, you had managed to lose some before by exercise and a combination of diets, but you can't keep it off. Don't mention what diets were used, but if you are asked to elaborate, you can explain that they were different diets that you saw in magazines – e.g. Fruit diet, low carbohydrate diets etc.
Medication being taken	None
Products previously used to lose weight	None
Current eating habits	Provide information that is true for you.
Current exercise habits	Provide information that is true for you.
You should be prepared to answer questions which are not related to your weight loss. Where possible respond with information that is true for you – e.g. in response to questions about your social circumstances. You should also be prepared to discuss details about the wedding you are attending e.g. whose wedding is it, where will it be held, what you are planning to wear for the wedding etc. Please remember any additional questions that are asked and include them in your post-visit report.	

**Table 5-1 Details of the scenario to be used in the simulated patient study**

If any questions were asked which were not covered by this brief, the patients were asked to improvise, and to make a note of the question afterwards. The simulated patients were asked to maintain their own identity (including age, occupation, BMI, dietary and exercise habits) as it has been recommended that simulated patients should invent a minimum of information [278].

The simulated patients were warned that members of staff might not necessarily stick to health-related questions and might, for example, ask questions about the wedding that they are attending or what they were planning to wear. They were advised to have thought about this beforehand and provide what information they wanted to. Again, this was done

to minimise the amount of information which needed to be remembered by the simulated patients.

The scenario was tested for face validity by seeking the advice of three practicing community pharmacists who confirmed that the scenario was typical of queries that they had received in practice. The simulated patients were asked immediately after each consultation if they felt they had been treated as a real patient would have been.

#### **5.3.2.5 Training of the Simulated Patients**

Both simulated patients were trained before undertaking the visits. This training was carried out separately, as the simulated patients were unaware of the fact that another simulated patient, with significantly different body weight, would be visiting the same pharmacies. Training was also provided on the completion of the post-visit report sheet, to ensure consistency of reporting.

The simulated patients were assessed on their scenarios and both were found to be competent. Before visiting the pharmacies included in the study, both patients piloted the scenario in a pharmacy which was not included in the study, to ensure that they felt comfortable with the scenario. No memory training was provided as the interactions were anticipated to be brief, and documentation of the visit was carried out immediately after each visit.

#### **5.3.2.6 Development of the Post-visit Report**

Immediately after each visit the simulated patient completed a post-visit report. This increased the reliability of the study by allowing the simulated patient to document their observations in an objective and reproducible way. No pharmacy specific protocols existed for patient consultations concerning weight control but recommendations and guidelines from the RPSGB [279], the ICCPE [280] and the National Task Force on Obesity [281] informed the development of an assessment tool. The post-visit report structure was based on that used by Anderson in a previous simulated patient study [18] and mirrored the questions asked in the pharmacist questionnaire which was used in this study.

The post-visit report form prompted the simulated patients to record information on a number of aspects of the consultation, such as what questions were asked, what advice was given, who dealt with the query, how long the consultation lasted, whether or not a weight-



control product was recommended and whether or not any written material was provided (Appendix 5.4). A checklist of anticipated questions and points of advice were included in the assessment form to help with summarising the data and ensuring that the observations were recorded systematically. Space was also provided to facilitate the provision of any additional information that was not covered in the checklists. Where questions were asked or advice was given, the patient was asked to record, as accurately as possible, the exact wording used by the staff member. The simulated patients were requested to note any information which they felt was important to the discussion but which was not addressed in the post-visit documentation.

During the visit simulated patients were asked to make note of whether or not the pharmacy stocked weight reduction products, displayed information leaflets on weight control or had a weighing machine in the shop for customer use. These were also recorded on the post-visit report.

The post-visit report form was reviewed by three practicing pharmacists and piloted by the simulated patients in one pharmacy to ensure it was comprehensive.

#### **5.3.2.7 Conducting the Study**

Each simulated patient visited all 20 pharmacies on the same day, but on different days to each other, a number of weeks apart. Both visited their pharmacies on a Monday, and in the same order, to reduce interfering effects, such as daily and weekly variations in workload or staffing [282]. The simulated patients were transported to each pharmacy location. This served two purposes. It removed concerns that have been raised regarding the veracity of information provided by simulated patients [220] and also served as a validation method for some of the information including duration of visit (each consultation was timed by both the simulated patient and the author) and whether or not literature was received. Both simulated patients were instructed that if they felt obliged to buy a product, to do so and to retain the receipt so that they could be reimbursed. However, in the first instance they were instructed to tell the member of staff that they wanted to think about the product before buying it.

#### **5.3.2.8 Outcome Measures**

Outcome measures included the number and type of questions asked, the nature of the information provided, whether or not a product was recommended and the duration of the consultation.

### **5.3.2.9 Analysis of Results**

The results obtained from the post-visit record sheets were analysed using SPSS [276]. Fisher's exact test and Mann Whitney U tests were performed.

## **5.4 Results**

In relation to the simulated patient study, the term "staff member" is used when referring to the person who dealt with the simulated patient query. The term is not a description of that person's professional status, and is used for both pharmacists and non-pharmacists.

### **5.4.1 Sample Selection and Response Rate – Survey**

Five pharmacies in the sample were situated in postcodes Dublin 1 and Dublin 2 (i.e. city centre), ten pharmacies were from other postcodes (Dublin 3 to Dublin 22) and four of the pharmacies had addresses in Co. Dublin.

Within two weeks from the date of posting, 15 completed surveys were received (75%). Each of the non-responders were contacted by phone and asked to return the survey, resulting in the return of 3 additional surveys. The two remaining pharmacies were contacted again at this point. It was arranged that another copy of the questionnaire would be delivered by the primary researcher to the remaining non-responding pharmacies. This resulted in 100% response rate.

### **5.4.2 Completion of Visits – Simulated Patient Study**

All 20 visits were completed by SP A, but only 19 were completed by SP B due to closure of the pharmacy at the time of the visit. This was an unscheduled closure at approximately 3pm in the day. It was not possible to re-visit this pharmacy at another time. Therefore only the 19 pharmacies that were visited by both simulated patients were included in the subsequent analysis of the simulated patient study and the survey.

### **5.4.3 Duration of Consultations**

#### **5.4.3.1 Duration of Consultation – Survey**

When asked how long a typical consultation would take following a request for information on weight reduction, the answers were provided as per Table 5-2. Free text space was provided for the answer and therefore the categories used are those which were created by the respondents.



<b>Duration of consultation (min)</b>	<b>Frequency (n)</b>
4	2
5	1
5-10	3
10	3
15-20	4
<b>Total</b>	<b>13</b>
Don't know	1
Varies	2
Missing responses	3

**Table 5-2 Summary of duration of consultation for conversations regarding weight control (As reported in the survey)**

Six pharmacies did not provide a time estimate for consultations. Two pharmacies stated that the time they spent with customers varied with one saying that it depended on how busy the shop was. One pharmacy stated that they did not know how long a consultation would take, stating that it “*depends on situation. If genuine weight issue could spend 15-20 minutes discussing it*”. These six responses were not included in the analysis. Because this question was a free text question, some respondents provided a range of time values, such as “*between 5 and 10 minutes*”. Where a range of values were given the mid point was taken for the purpose of estimating an average value – i.e. 7.5 was taken as the consultation time for those who provided 5 – 10 minutes as an answer. Using the 13 useable answers, the average consultation time quoted from the survey was 10.42 minutes (Range: 4 - 20 min, std dev: 5.3min).

#### **5.4.3.2 Duration of Consultation – Simulated Patient Study**

The average duration of simulated patient visits was 3.74 minutes (Range: 1 - 15 min std dev: 3.08) with visits lasting an average of 2.21 minutes for SP A (Range 1 - 5 min, std dev: 1.13) and 5.26 minutes for SP B (Range 1 - 15 min, std. dev: 3.65). The difference between the two simulated patients was statistically significant ( $p < 0.001$ ). There was no statistical difference between the average consultation duration with pharmacists (Total: 3.42 min, Range: 1 – 15 min, std. dev: 2.78) and non-pharmacist staff (Total: 4.33min; Range: 1 – 15 min; std dev: 4.58) ( $p = 0.180$ ).

#### **5.4.3.3 Duration of consultation – Comparison of Results**

Pharmacists in the survey estimated consultation times that were significantly longer than the average recorded in the simulated patient study ( $p < 0.001$ ). These are summarised in Table 5-3.

	SP A	SB B	Averaged SP result	Survey Results
<b>Mean duration of consultation (min)</b>	2.21	5.26	3.74	10.42
<b>Range of consultation durations (min)</b>	1 – 5	1 – 15	1 – 15	4 – 20
<b>Standard deviation</b>	1.13	3.65	3.08	5.3

Table 5-3 Summary of duration of consultation (Survey and simulated patient study)

#### 5.4.4 Status of Assistant Dealing with Request

##### 5.4.4.1 Status of Assistant Dealing with Request – Survey

The survey did not ask who normally dealt with patient queries relating to weight control.

##### 5.4.4.2 Status of Assistant Dealing with Request – Simulated Patient Study

In approximately half of the cases (SP A: n=11, SP B: n=8), the simulated patients identified the staff member who responded to their query as a pharmacist. This identification was made either by means of observing their status on their name badge or by having the staff member identify him/herself as the pharmacist to the simulated patient. In approximately one quarter of cases (SP A: n=4 and SP B: n=5) the simulated patient's query was dealt with by a non-pharmacist staff member. Simulated patients were not asked to identify the status of non-pharmacist staff, as there are no formal means by which to classify such staff in Ireland. In the remainder of this chapter the term "pharmacy assistant" is used to describe all non-pharmacist members of staff.

In the remaining visits (SP A: n=4, SP B: n=6) the simulated patients could not identify the status of the person who dealt with their request. This was usually due to the fact that all staff members in the pharmacy were dressed similarly and there was no name badge to indicate any differentiation in status. In one case SP B initially assumed that she must be speaking to the pharmacist, because the person to whom she was speaking "*seemed very confident in what she was saying*". However the simulated patient was confused by the fact that, during the consultation, she observed another individual coming out of the dispensary, wearing a white coat. This distinguished her from all the other members of staff, and so the simulated patient supposed that this individual must be the pharmacist and that the person dealing with the request must be a non-pharmacist member of staff. This may not have been a correct assumption however, as two pharmacists may have been on



duty that day. For both simulated patients, the majority of the interactions were with female members of pharmacy staff (SP A: n=15, SP B: n=14).

### 5.4.5 Questions asked

#### 5.4.5.1 Questions asked – Survey

Respondents were provided with a list of questions and were asked to indicate which questions they would normally ask a customer who was seeking advice for weight loss. They were also asked to list any other questions that they would ask, that were not mentioned on the list.

Pharmacists reported that they would ask several questions (Average: 5.37 questions, range: 1 – 7, std dev: 1.64) when responding to a patient requesting advice on weight control. All respondents (n=19) indicated that they would ask patients about current dietary and exercise habits and the majority indicated that they would ask about medical conditions (n=16), whether or not patients were taking medication (n=17) and whether they had previously tried to lose weight (n=17). Approximately two thirds indicated that they would ask patients why they wanted to lose weight (n=12) and how much they wanted to lose (n=13) and almost a half (n=9) indicated that they would check the patients current weight status (Table 5-4).

<b>Do you ask...</b>	<b>Number of pharmacies (n)</b>
... why they want to lose weight?	12
... if they have tried to lose weight before?	17
... how much weight they would like to lose?	13
... about current dietary habits and exercise?	19
... about any existing medical conditions/diseases	16
... if they are on any medication?	17
Do you check weight/Body Mass Index	9
<b>The number of pharmacies that would ask at least one question</b>	<b>19</b>

Table 5-4 Summary of the questions asked during consultations (as reported in the survey)

#### 5.4.5.2 Questions asked – Simulated Patient Study

Once the simulated patients presented their query, they were asked no in questions over half of the interactions (SP A: n=11, SP B: n=12). Of those who did ask questions, most asked no more than one or two questions, with an average of 0.84 questions being asked (SP A: Average: 0.74 questions, Range 0 – 4, std dev: 1.15; SP B: Average: 0.95 questions,

Range: 0 – 5, std dev: 1.47). There was no significant difference between SP A and SP B in the number of questions asked during the consultations (p=0.934). Although more questions were generally asked by pharmacists (Average: 1.16 questions, std dev: 1.54) than by non pharmacists (Average: 0.56 questions, std dev: 1.13) this difference was not statistically significant (p=0.195).

There was no significant difference between the types of questions that were asked of each simulated patient Table 5-5.

Questions asked	Numbers of pharmacies (n)		Significance of difference between SP A and SP B (p value)
	SP A	SP B	
The staff member asked, or would ask (in the case of the survey)...			
...why the patient wanted to lose weight	0	2	0.486
...if the patient had previously attempted to lose weight	2	3	1.00
...how much weight the patient was hoping to lose	3	2	1.00
... by when the patient wanted to lose the weight	5	2	0.405
...about current dietary habits and exercise	4	5	1.00
...if the patient had any diseases/conditions	0	2	0.486
...if the patient was taking any other medication	0	2	0.486
Was weight/BMI checked?	0	0	No difference

**Table 5-5 Comparison of the number of times each question was asked of SP A and SP B**

Most of the questions asked related to the patients current exercise and dietary habits (SP A: n=4, SP B: n=5). These tended to be closed questions which did not provide the simulated patient with an opportunity to provide much information (Table 5-6).

SP A (with pharmacy identifier)	SP B (with pharmacy identifier)
"Do you eat breakfast?" (#3) "Do you eat breakfast?" Followed by "What do you eat for breakfast?" (#11) "Are you already dieting?" (#16) "Do you snack a lot?" (#17)	"Do you exercise?" (#7) "Are you eating well?" (#16) "Do you do a bit of exercise?" (#17) "How much do you currently eat?" (#19) "Do you do any exercise?" (#20)

**Table 5-6 Summary of questions asked by pharmacist staff relating to exercise and dietary habits (as reported in the simulated patient study)**



Some questions were also asked about the amount of weight that the patient was hoping to lose (SP A: n=2, SP B: n=3) and whether or not they had previously tried to lose weight (SP A: n=3, SP B: n=2). Very few staff members asked the patients if they suffered from any medical conditions or if they were taking any medication. None of the interactions involved the staff member checking the simulated patients' weight or BMI either through questioning or through physical measurement.

#### 5.4.5.3 Questions asked – A Comparison of Results.

In the survey, pharmacists reported that they would ask more questions than was observed in the simulated patient study and this difference was statistically significant ( $p < 0.001$ ) (Table 5-7).

Number of questions asked (n)	Number of pharmacies (n)			
	SP A	SB B	Average SP result	Survey Results
0	11	12	11.5	0
1	5	1	3	1
2	1	3	2	0
3	1	2	1.5	2
4	1	0	0.5	1
5	0	1	0.5	4
6	0	0	0	6
7	0	0	0	5
<b>Average number of questions asked</b>	<b>0.74</b>	<b>0.95</b>	<b>0.84</b>	<b>5.37</b>

Table 5-7 Duration of consultation (Comparison of survey and simulated patient study)

The survey results indicated that at least one question would be asked in all consultations relating to weight control. However it was found that no questions were asked in over half of the consultations with the simulated patients. Survey responses consistently over-estimated the frequency with which all questions were asked (Table 5-8).

Questions asked	Number of pharmacies (n)		Significance of difference between Simulated patients and survey (p value)
	Average SP result	Survey	
The staff member asked, or would ask (in the case of the survey)...			
...why the patient wanted to lose weight	1	12	< 0.001
...if the patient had previously attempted to lose weight	2.5	17	< 0.001
...how much weight the patient was hoping to lose	2.5	13	< 0.001
...about current dietary habits and exercise	4.5	19	< 0.001
...if the patient had any diseases/conditions	1	16	< 0.001
...if the patient was taking any other medication	1	17	< 0.001
Was weight/BMI checked?	0	9	< 0.001

Table 5-8 Summary of questions asked during consultations (Comparison of survey and simulated patient study)

## 5.4.6 Information Provided

### 5.4.6.1 Information Provided – Survey

When asked to indicate what advice they typically provided to patients who requested advice for weight loss, the majority (n=16) of pharmacists stated that they would offer advice regarding healthy eating and exercise. Half this amount (n=8) said that they would recommend a product and a similar number (n=9) said that they would refer the patient to a GP (Table 5-9).

Action taken in response to request	Frequency of responses (n)
Recommend a product	8
Dissuade the patient from purchasing a weight loss product	6
Offer advice regarding healthy eating and exercise	16
Refer the patient to their GP	9
Discuss will power	7
Offer a leaflet on weight loss	7

Table 5-9 Summary of actions taken during consultations (as reported in the survey)

The following additional comments were added by the respondents.

*Only recommend product when specifically asked to (# 3)*

*Refer to GP when all else fails (# 6)*

*Refer to GP if patient has existing conditions (# 8)*



*If BMI < 26 I will dissuade the patient from buying a product and will offer advice regarding healthy eating and exercise. If BMI ≥ 26 I will provide the CD on Lipotrim (# 14)*

*In general I would not recommend weight loss products – will give advice. I feel diet is the main problem that needs to be tackled (# 18).*

Fourteen of the pharmacies stated that they stocked weight reduction products. Of those that said that they did not stock weight loss products, some pharmacists provided reasons for not doing so. These included

*No demand (#2)*

*I believe them to be ineffective in the long term – I don't believe in any "magic pill" that makes a person slim. Only a change in lifestyle. They are a money making gimmick (#4)*

*Do not have time or expertise in nutritional requirements (#6)*

*Most don't have a product license (#13)*

#### **5.4.6.2 Information Provided – Simulated Patient Study**

Table 5-10 provides an overview of action taken during the simulated patient visits. Almost one quarter (n=4) of staff members informed SP A (BMI of 22.4kgm<sup>-2</sup>) that she did not need to lose weight and one staff member provided this advice to SP B (BMI of 30.4kgm<sup>-2</sup>). The staff member in just under one quarter of pharmacies indicated that they could not provide any advice in relation to weight control (SP A & SP B: n=4). For each simulated patient, three of the four staff members elaborated on their response by saying that they did not stock any weight control products, with some recommending that the patient try another pharmacy or health-food shop. In one of the visits by SP B, the staff member, who was identified as the pharmacist, qualified her referral by explaining to the patient that even though slimming products were natural, "*they can still clash with medication*" (# 6) and she didn't feel that pharmacists were specialised enough to know about those clashes. She recommended that the patient go to one of two named health-food shops instead.

Just over a third of staff members (n=7) provided some diet related advice to SP A, but in three of these cases this advice was given in the context of dietary modifications that were required with the use of a recommended weight-control or detox product. Therefore just under one quarter (n=4) provided advice to SP A that was not related to a product. Almost

two thirds of staff members (n=12) provided diet related advice to SP B, none of which was related to a product (See Table 5-11).

Pharm ID	Simulated Patient A		Simulated Patient B	
	Status Gender/age	Action	Status Gender/age	Action
#1	Pharm F /20s	Don't need to lose weight. Recommended detox prod	Pharm F /20s	Recommended product and some diet advice
#2	Pharm F /50s	No info. Don't stock products	Pharm F /60s	Don't need to lose weight Some dietary advice.
#3	Pharm F /50s	Recommended product	PA F /20s	Lots of dietary and exercise advice
#4	PA F / 30s	Recommended product	PA F /Teens	No info
#5	Pharm F /30s	Don't need to lose weight. Recommended detox product.	Pharm F /50s	Shouldn't use slimming product. Try detox. Dietary advice
#6	PA F /30s	No info. Don't stock. Go to health food shop.	Unknown F /30s	No info. Go to a health food shop
#7	Pharm M /20-30	No info.	Pharm M /20s	Enquired about exercise and advised to keep it up
#8	Unknown F /40s	No info. Don't stock. Go to another pharmacy	Pharm F /30s	No info. Don't stock anything
#9	Pharm M/30s & PA F/40s	Pharmacist didn't have any info. PA said to try Atkins	PA F /20s	No info. Don't stock anything. Referred her to another pharmacy
#10	Pharm M 20/30	Showed products. Simple dietary advice	Pharm M 20s	Showed products. Simple dietary advice
#11	Pharm F/ 30s	Don't need to lose weight. Dietary advice	Pharm M/20s	Advised against products. Simple dietary advice
#13	PA F/30s	Advised against products. Some dietary/exercise advice	PA F/30s	Suggested detox. Some exercise and diet advice
#14	Pharm F/30-40	Don't need to lose weight.	Unknown F/50s	Gave info on Lipotrim but would not advise it
#15	Pharm F/20s-30	Advised against products. Exercise and diet	PA F/30s	Suggested Lipotrim in another pharmacy. Some dietary advice
#16	Pharm M/20s	Showed products	Pharm M/20s	Recommended products – explained difference between detox. Some dietary advice
#17	PA F/30s	Recommended product	Pharm grad F/20s	Advised against products. Some dietary advice
#18	PA F/20s	Recommended product	Unknown F/45	Recommended product
#19	Unknown F/40s	Showed products -said it was trial & error	Unknown F/40s	Diet and exercise advice
#20	Unknown F/30s	Recommended product	Pharm M/30s	Recommended product and some advice

F = Female, M = Male, PA = Pharmacy Assistant, Pharm grad = Pharmacy graduate

**Table 5-10 Overview of outcomes from simulated patient study**



<b>Simulated Patient A (Pharmacy identifier)</b>	<b>Simulated Patient B (Pharmacy identifier)</b>
<ul style="list-style-type: none"> <li>▪ Try to have a balanced diet while on the detox product. Cut out the caffeine. (#1)*</li> <li>▪ Eat normally while using the product. Otherwise it won't work (#3)*</li> <li>▪ Eat healthily along with taking the product (#4)*</li> <li>▪ Eat plenty of fruit and vegetables, cut down on fat and drink plenty of water (#10)</li> <li>▪ Eat high fibre breakfast. Stick to 3 meals a day. Eat plenty of fruit and vegetables to fill up, drink plenty of water. Cut down on bars/sweets. (#11)</li> <li>▪ Try to change your diet (#14)</li> <li>▪ Reduce carbohydrates such as white bread and pasta (#15)</li> </ul> <p>*Note, the first three quotes related to information provided in the context of a slimming/detox product.</p>	<ul style="list-style-type: none"> <li>▪ Eat plenty of fruit (#1)</li> <li>▪ Eat smaller portions (#2)</li> <li>▪ Provided written information on a weight management diet including Sample Meal plans with associated calorie contents and supplemented this with verbal advice (#3)</li> <li>▪ Drink loads of water and eat sensibly (#5)</li> <li>▪ Try to eat a calorie controlled diet with 5 bits of fruit every day (#10)</li> <li>▪ Cut out full fat food and go for low fat options, like fruit (#11)</li> <li>▪ Try to eat more healthily – cut out the junk food and drink lots of water (#13)</li> <li>▪ Eat food from the fresh food counter in the supermarket (#15)</li> <li>▪ It's really important to watch your diet (#16)</li> <li>▪ Make sure you get protein in your diet every day and drink plenty of water (#17)</li> <li>▪ Explained the concept of food intake versus exercise and the need to reduce the amount of food you eat (#19)</li> <li>▪ Eat healthily (#20)</li> </ul>

**Table 5-11 A summary of dietary advice provided to simulated patients**

Four pharmacies provided exercise related advice to SP A, and double this number provided such advice to SP B. Most of the pharmacies who provided advice on exercise also provided advice on diet, with only one pharmacy for each patient providing exercise related advice without dietary related advice. Most of the advice relating to diet and exercise was general in nature and not tailored to the patients (Table 5-12).

Seven and six staff members recommended a product to SP A and B respectively. These included herbal supplements and meal replacement products as outlined in Table 5-13. In a further three cases (for each simulated patient) staff members directed the simulated patient to a range of weight loss products, but no particular product was recommended.

<b>Simulated Patient A</b>	<b>Simulated Patient B</b>
Try to walk to or from work or get out for a walk in the evening (#11) Walk three nights a week (#13) Take more exercise (#14) Take a little more exercise (#15)	Get more exercise (#2) Get a bit more exercise and keep up the walking that you have been doing (#7) Exercise a bit more (#13) It's very important to get exercise (#16) Explained the concept of food intake versus exercise and the need to increase exercise (#19) Exercise a bit more (#20) Pharmacy # 3 provided written information on exercise and provided example of how exercise could be incorporated into an everyday routine.

**Table 5-12 Summary of exercise advice provided to simulated patients**

<b>Weight control products mentioned</b>		
<b>Survey Response</b>	<b>Simulated Patient A</b>	<b>Simulated Patient B</b>
Apple cider <sup>®</sup> (3) Biofirm <sup>®</sup> Helix Slim <sup>®</sup> Lipotrim <sup>®</sup> (3) Silver tabs/patches <sup>®</sup> (3) Slender day/night <sup>®</sup> Strobby <sup>®</sup> (3) Tone & Slim <sup>®</sup>	Apple Cider <sup>®</sup> Biofirm <sup>®</sup> Silver <sup>®</sup> Slender Cleanse <sup>®</sup> Slimtone <sup>®</sup> Strobby <sup>®</sup> Tone & Slim <sup>®</sup> Ultralife <sup>®</sup> multivitamin and detox shake	Apple Cider <sup>®</sup> Lipotrim <sup>®</sup> Silver <sup>®</sup> Slimmers day & night <sup>®</sup> Tone & Slim <sup>®</sup>
Note, more than one product was mentioned in some pharmacies		

**Table 5-13 Summary of the weight control products mentioned in the survey and in the simulated patient visits**

In no case did the simulated patients report feeling pressurised to purchase any product. Where a product was recommended, each patient stated that she would like to think about it before buying it, and this was accepted by the member of staff on each occasion. In a number of cases (SP A: n=6; SP B n=3) the staff members dissuaded the simulated patients from buying such. For example one staff member provided information to SP B on the Lipotrim programme and stated that it was successful in achieving weight loss, but stated that she would not recommend the programme saying *"It's something that I wouldn't do myself, but which I know has worked for some people"* (#14).

In one pharmacy (#9), the staff member (identified as the pharmacist) said he could provide no information on weight loss, but was interrupted by a second staff member



(identified as a pharmacy assistant) who indicated that the simulated patient should try the Atkins diet. The assistant insisted that it had worked really well for her sister, and that the patient just had to be “*really strict with (herself) about what she (ate)*”. This was the only occasion on which either of the simulated patients reported feeling embarrassed during a pharmacy visit, as the member of staff was providing the advice from some distance away (“*The other end of the counter*”) and the simulated patient was conscious that the other customers in the shop could hear the exchange.

In general there was no significant difference in the actions taken in response to SP A and SP B, with the exception of the provision of lifestyle advice. Significantly more information on diet and exercise was provided to SP B than to SP A (Table 5-14).

Action taken in response to request	Number of pharmacies (n)		Significance of difference between SP A and SP B (p value)
	SP A	SP B	
Recommend a product	7	6	1.000
Dissuade the patient from purchasing a weight loss product	6	3	0.447
Offer advice regarding healthy eating and/or exercise	5*	13	0.022
Refer the patient to the GP	1	0	1.000
Discuss will power	1	0	1.000
Offer a leaflet on weight loss	5	6	1.000
Advise patient that no weight loss required	4	1	0.340

\*Those providing dietary advice in the context of selling a product were not included in this figure  
**Note that the total sum of actions exceeds 100% due to the multiple actions of some pharmacy staff.**

**Table 5-14 Comparison of advice provided to SP A and SP B**

There were some pieces of advice provided to the simulated patients which were not covered in the assessment form. One staff member (#11) discussed the area of motivation with SP A saying that the patient should be able to keep herself motivated as she didn't have very much weight to lose and her target was within the next month. Another staff member (#6) indicated to SP B that dietary products could interact with prescription medications, but did not make any effort to find out if the patient was on any such medication. On one occasion (#16) SP A was informed that there was a “*drug called Xenical<sup>®</sup> which is used for reducing weight*”, and that she should discuss this when she next visited her doctor. In one pharmacy (#15) the assistant recommended that SP B buy a particular book in a local bookshop, and also recommended the Lipotrim diet, which was

being run by a neighbouring pharmacy. Apart from the reference to the doctor, and the occasions where the simulated patients were advised to go to another pharmacy or shop, no referrals to any other healthcare professional were made.

### 5.4.6.3 Information Provided – Comparison of Results

Responses the survey overestimated the amount of information which was provided to patients requesting information on weight control. No advice was provided in almost a quarter of simulated patient visits, although the survey indicated that some advice would always be provided. The number of pharmacists that reported that they would recommend a product to help with weight loss was similar to that observed in the simulated patient study. Similar results were also found in both studies for the number of times a patient was dissuaded from buying a product.

Action taken (or reported to be taken in the case of the survey)	Number of pharmacies (n)		Significance of difference between Simulated patients and survey (p value)
	Average SP result	Survey responses	
Recommend a product	6.5	8	0.365
Dissuade the patient from purchasing a weight loss product	4.5	6	0.514
Offer advice regarding healthy eating and/or exercise	9	16	<0.001
Refer the patient to the GP	0.5	9	<0.001
Discuss will power	0.5	7	<0.002
Offer a leaflet on weight loss	5.5	7	0.535
Advise patient that no weight loss required	2.5	Not asked in survey	

\*Those providing dietary advice in the context of selling a product were not included in this figure  
**Note that the total sum of actions exceeds 100% due to the multiple actions of some pharmacy staff.**

**Table 5-15 Summary of action taken during consultations (Comparison of survey and simulated patient study)**

Table 5-15 and Figure 5-1 compare the results from both the simulated patient studies and the survey regarding the action taken by staff members in response to a query relating to weight control.



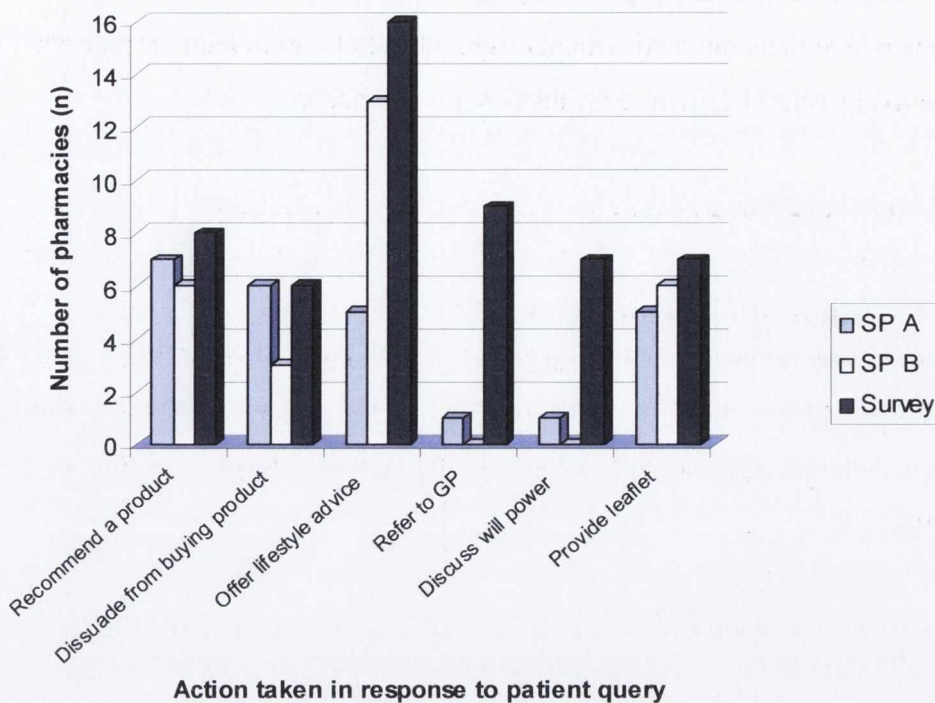


Figure 5-1 Bar chart representation of the action taken in response to a patient request for information on weight loss (as reported by the simulated patients and the pharmacist surveys)

## 5.4.7 Written Information

### 5.4.7.1 Written Information – Survey

Seven pharmacists indicated that they would provide written information to patients seeking information on weight loss. However the nature of this information was not described.

### 5.4.7.2 Written Information – Simulated Patient Study

Five and six staff members provided SPA and SP B respectively with written information. With one exception, all of these leaflets were commercial in nature, relating to slimming products which were for sale in the pharmacy. On only one occasion (#3) was the simulated patient provided with non-commercial written information. In this pharmacy the staff member provided two leaflets, both of which were produced jointly by the Health Promotion Unit and the Irish Heart foundation – “*Are you ready to lose weight?*” and “*Good Eating for a happy heart*”. This staff member also went to the dispensary and printed out additional, non-commercial information which was given to the simulated patient.

#### **5.4.7.3 Written Information – Comparison of Results**

The numbers of times that pharmacists reported that they would provide written information to patients (n=7) was similar to that observed in the simulated patient study (SP A: n= 5; SP B: n=6). However the latter approach provided more information on the nature of this information.

#### **5.4.8 Location of Consultations**

In the survey 4 respondents indicated that they took patients enquiring about weight loss to a private consultation area. However this did not occur in any of the consultations with the simulated patients, although SP A was guided to a quieter area of the pharmacy on two occasions.

#### **5.4.9 Other Details Relating to Weight Control in Pharmacies**

Eight of the respondents reported having a weighing machine in their shop. Those who did not have a weighing machine provided a variety of reasons for not having one. One pharmacist said that they were in the process of purchasing a machine, two said that it would not be economically viable, one pharmacy stated that they were new and hadn't considered it yet, five cited lack of space as their reason, one pharmacy stated that they previously had a machine but it had broken and one gave no reason for not having one. A weighing machine was observed by SP A in five of the shops, one of which was out of order.

Fourteen of the pharmacies indicated that they stocked weight loss products, with the majority of these (twelve) saying that they were displayed in areas where they could be self selected rather than behind the counter. Similar results were obtained in the simulated patient study, with SP A observing weight loss products in fourteen pharmacies, with eleven displaying these products on the shop floor. Simulated Patient B did not report information relating to weighing machines or weight control products. During the training session she stated that making these observations distracted her from the interaction with the staff member and therefore these were not recorded in her visits.

When they were asked if they ever followed up on a patient's progress, three pharmacists said always, eight said sometimes and three said never (five non responders). No efforts were made in any pharmacy to follow up on the simulated patients' progress.



Three of the pharmacies reported running a weight management clinic in the pharmacy, all of which were based on the Lipotrim programme. A further six respondents said that they were considering offering that programme.

During the simulated patient study, one pharmacy (#16) had a computer in the shop which could be accessed by customers seeking information. SP A was directed to look up this computer by the staff member after presenting with her initial enquiry. The simulated patient reported that there was a lot of general information on the computer about BMI calculations, special diets, obesity, low fat and low salt diets. However there was no facility to print information and she was not sure which diet she should follow. She therefore asked the staff member if she could assist her. The staff member *“just shrugged her shoulders and shook her head, as if to say she knew nothing about it”*. The pharmacist then intervened and started to discuss some of the weight control products with her. There were no questions in the survey relating to these types of information terminal.

## **5.5 Discussion**

This study used simulated patients to observe how requests for advice on weight control were dealt with in a community pharmacy setting. This was compared with the responses obtained in a pharmacist survey, which asked pharmacists to report how they dealt with such queries.

### **5.5.1 Patient Interactions**

The simulated patient study demonstrated the accessibility of staff for consultation in community pharmacy, with no waiting time experienced for consultation in any case. The IPU have highlighted this accessibility as a key benefit of community pharmacy [186]. Although the simulated patients in this study did not specifically ask to speak to a pharmacist, half of the transactions were facilitated by pharmacists. The proportion of pharmacists facilitating interactions was similar to the findings from one New Zealand study [274] but slightly greater than the 31% identified by McGuinness (in another New Zealand study) [283] and considerably greater than the 14% identified by Watson et al. in Scotland [284]. Although the sample was small, they suggested that Irish pharmacists may be more accessible to patients than pharmacists in other countries. The fact that Ireland has one of the highest ratios of pharmacies to population in Europe [89] would support this finding.

In approximately a quarter of cases the simulated patients could not identify if the person who was dealing with their request was a pharmacist or not. This can result in confusion on the part of the patient, as has been observed in a number of studies [274, 275] and has been raised in other studies as a matter of concern [284-286]. Whilst some pharmacies may have had internal policies which resulted in a distinction between the pharmacist and other staff, for example dress code, this was not necessarily understandable from the patient's point of view. In Ireland, to date, there have been no formal training requirements for individuals who work on a medicines counter in Ireland. Therefore, from a patient perspective, it is important that these staff can be differentiated from pharmacists.

In the final quarter of cases non-pharmacist staff (pharmacy assistants) facilitated the patient interactions. Unlike the UK, where a Medicine Counter Assistant is defined as someone who has satisfactorily completed or is undertaking a certificated programme of training or work in support of the sale of non-prescription medicines and giving of advice on health matters [287], there are no formal training requirements for such staff in Ireland, although the IPU and some of the larger chain companies provide their own training courses. Generally, the role of pharmacy assistants is to facilitate the sale of medicines and, when deemed necessary, refer a customer to the pharmacist. In this way they often act as a gatekeeper for the pharmacist. This gatekeeper role also exists in other professions: for example the receptionist in general practice can be considered a gatekeeper for doctors [288] and nurses in general practice or in dental practices may act in similar ways. However, the fundamental difference between pharmacy and other healthcare professions is that the status of the gatekeeper can vary from pharmacy to pharmacy and is not always obvious to the patient. It is generally accepted that a receptionist is not qualified to provide medical advice in the general practice setting and whilst practice nurses are perceived as being qualified to make certain interventions, the limits of their capabilities are generally understood. Such clear demarcation in roles is not always obvious in the pharmacy. Due to the open and informal nature of pharmacies, queries are often directed to the first person encountered by the patient. There is often no means by which to identify the status of this individual, who may have trained as a pharmacy technician or counter assistant or on the other hand may have received no formal training. In a Welsh study, Ylänne et al. [285] explored the role of medicines counter assistances (MCA) and commented that there was a risk of MCAs providing inappropriate products or advice due to lack of training, knowledge and understanding or due to over-stepping competence if they did not know their knowledge deficiencies. If this is the case in Wales,



where MCAs are required to meet minimum National Vocational Qualification level 2 training requirements [289, 290] it is likely to also be the case in Ireland, where no such standards apply.

Given that pharmacy assistants appear to make a large proportion of medicine sales, there have been relatively few studies addressing their contribution to advice giving [291]. Ylänne et al. used discourse analysis of 41 staff client interactions in three Welsh community pharmacies to classify the ways in which interactions were facilitated by Medicine Counter Assistants (MCAs) [285]. They concluded that a patient-MCA interaction could see the MCA acting in a wide range of ways which included them dealing solely with the client, dealing with the client but checking advice with the pharmacist, acting as a gatekeeper, keeping the client “on hold”, acting as an active intermediary or being interrupted by the pharmacist who intervened in an MCA-client interaction. In the simulated patient study which was carried out as part of this research, most of the pharmacy assistants dealt solely with the patient, and did not involve the pharmacist in the discussion, indicating that they felt the query was within the scope of their capabilities. However, an additional type of interaction, not covered by Ylänne’s classification, was also observed in this study; one in which the pharmacy assistant intervened in a pharmacist-client interaction. This was observed in the case where the pharmacy assistant advocated the use of the Atkins diet, because it had worked for her sister. In this case, the counter assistant seemed to feel more qualified than the pharmacist to provide advice. This would be unlikely to occur in situations relating to medicines where pharmacists are perceived as the expert. However, in the area of weight control, personal dieting experience may cause individuals to feel authoritative on the subject resulting in the provision of information based on personal experiences rather than information which is based on a wider evidence base. This suggested that standardised, evidence-based training on weight control should be provided to both pharmacy assistants and pharmacists. To date, although some training on the principles of weight control has been made available to pharmacists by the ICCPE [131], no training has been developed for non-pharmacist staff. Indeed, in general, there are very few training interventions developed for non-pharmacist staff.

The consultation times observed in this study were comparable to those of other studies. A wide range of consultation durations have been reported in other studies. Anderson found that health promotion consultations lasted an average of 2.45 minutes for pharmacists who

had not been trained, but that following training on communication skills and health promotion skills this approximately doubled [18]. A simulated patient study by Berger et al. indicated that counselling in response to a product request or symptom presentation lasted between 30 seconds and 5 minutes [221]. Smith et al. reported a mean consultation time of 2.5 minutes following observation of 744 consultations [292]. Ortiz reported average consultation durations of 1.7 minutes which generally involved counselling about prescribed or OTC medication. Much longer consultations were reported in a study which assessed pharmacist consultations regarding emergency contraception, with consultations lasting between 10 and 15 minutes [30]. This indicated that the duration of consultation varied according to the purpose of the consultation. The simulated patient study which was presented here suggested that consultation length can also depend on the patient, with a significant difference in consultation length observed between Simulated Patients A (2.21 minutes) and B (5.26 minutes) despite identical scenarios. The impact of patient characteristics on consultations does not appear to have been previously explored in simulated patient studies. Indeed it has been alleged that every encounter and every customer should be treated in the same manner by service personnel and that, as a result, differences between simulated patients should have little or no impact on the processes and procedures followed [278]. Although this may be an appropriate assumption when using simulated patient studies to investigate over-the-counter or prescription sales, the results of the study outlined here suggest that it is not a valid assumption when investigating advice provision in some health promotion areas such as weight-control, diet, exercise or blood pressure where advice provided may be influenced by the patient's physical appearance. In this study the difference in consultation times may have been due to the fact that the overweight patient had an obviously greater need to lose weight than the patient who had weight in the normal range. However the difference may also have been due to other patient specific factors and a larger study (involving more simulated patients) would be needed to explore this issue fully.

In the survey pharmacists generally reported consultation durations which were considerable longer than occurred during the simulated patient visits. Ortiz et al. [293] reported a similar finding in a study which compared the use of self-completed questionnaires, diaries and direct observations to assess patient counselling activities in Australian community pharmacies. The patients found that there were significant differences between the mean counselling times recorded by the three methods. Direct observations recorded a mean counselling time of 1.7 minutes compared with 3.6 minutes



for the diaries and 4.2 minutes for the questionnaire. Smith [171] also commented on the tendency for consultation lengths in simulated patient studies to be shorter than reported in self completed questionnaires. She suggested that self-reports may be subject to bias as a result of individuals knowingly misrepresenting activities or events, or unwittingly as a result of poor memory or misconceptions regarding the actual state of affairs. However, this study suggests another alternative. In the case of health promotion interventions, it may be more difficult to predict the duration of consultation due to the fact that intervention will depend on patient characteristics to a greater extent than would be expected in the sale of a product or prescription. This was also indicated in some of the survey responses where some pharmacists indicated that duration of consultation would depend on the patient, which did indeed appear to be the case during the simulated patient visits, with consultations with Simulated Patient B generally lasting longer than those with Simulated Patient A. This indicated that the surveys may not be an accurate means of determining duration of health promotion interventions or numbers of questions asked as patient factors may have greater impact than they would in most OTC scenarios.

### **5.5.2 Questioning**

Questioning is an important part of the consultation process as it allows the staff member to gain a full understanding of the patient's issue, confirms proper self-diagnosis, facilitates the provision of appropriate advice and allows for the tailoring of information to the patient. However, the level of questioning observed during the simulated patient visits was low. Over half of the staff members asked no questions of either patient whilst, in contrast, survey responses indicated that at least one question would be asked in all consultations.

At no point was either patient asked about her current weight status, nor were any measurements taken. It can be assumed that staff members used the patient's appearance as a guide, as evidenced in the assertion that the patient did not need to lose weight in a number of cases. However appearance is a subjective measure of weight, and, in the case of Simulated Patient B, led to an incorrect assertion that the patient did not need to lose weight. This simulated patient was obese by standard guidelines, and would therefore benefit from weight loss. The pharmacist's advice in this case represented a lost opportunity for a potentially useful health intervention. In practice, this could contribute to an obese individual becoming complacent about weight and could serve as justification for maintaining unhealthy behaviours. It is generally accepted that in order to provide appropriate advice in weight loss, some effort should be made to ascertain current weight

status and BMI [197, 281, 294]. At a minimum, this could be done through questioning of the patient, although research indicates that self-reported measures of weight tend to be less than actual measures [295]. The report of the National Taskforce on Obesity states that an individual's capacity in choosing to manage their health and well-being is strengthened with the knowledge of their height, weight, waist circumference and BMI [185]. In the survey almost half of the pharmacies reported having a weighing machine. Therefore weight measurements could be easily facilitated in many pharmacies. However, the simulated patient study demonstrated that no such measurements were taken by pharmacy staff when responding to patient queries relating to weight. Similarly, current weight status was not ascertained through questioning, although almost half of the survey responses indicated that this would be done.

In most cases the staff member did not ask how much weight the patient was hoping to lose or by when it was planned to reach this target, although over half of the survey responses indicated that such a question would be asked. Guidelines advise a target of 5% weight loss for the first three months [185] which would have been equivalent to a weight reduction of 3.2kg and 4.14kg for SP A and SP B respectively. Therefore the anticipated weight loss in the simulated patient scenarios represented an unrealistic target. Because they did not ask the simulated patients about their anticipated weight loss, staff members could not inform the patients that their target of losing a stone in one month was unreasonable. Setting realistic goals is an important part of weight management [296, 297] which could be facilitated by the pharmacy team.

The RPSGB practice guidance for dealing with queries relating to obesity states that it is important to understand why a person wants to lose weight and to determine their level of commitment [279]. Motivational interviewing is one method by which patients own motivations can be used to encourage change behaviour [298]. This technique advocates the use of Open questions, Affirmations, Reflective listening and Summarising (OARS) in the first phase of patient consultations in order to understand the patient's perspective and to help resolve ambivalence towards change. Because none of the staff members asked the patient about their reason for losing weight, they could not utilise the patient's motivating factor to help build commitment. This also reduced the opportunity to build rapport with the patient, which could have been achieved by discussing some of the details of the wedding.



The simulated patients were rarely asked about disease or medication history, although in the surveys most pharmacists did indicate that they would seek this information. Certain medications impact significantly on weight control with many causing weight gain as a side effect [197, 299, 300]. Clause 9 of the community contractor agreement provides that prior to the supply of medicine a pharmacist should review the medicine therapy of the individual for whom the prescription is issued, and that this review should include screening for any potential drug therapy problems [73]. Although this pertains to the supply of prescription medications, it would seem good professional practice to conduct a similar review before advising on weight control, to identify if weight gain is being caused by medication. Additionally, herbal products may have the potential to interact with prescribed medication and therefore obtaining a patient's medication history before the sale of such products is advisable.

The issue of questioning during patient consultations has been considered in other studies. In Germany, Alte et al. [273] used simulated patients to evaluate the response of pharmacy staff to a patient with a headache. They observed extreme variation in levels of questioning, and concluded that greater elicitation of symptoms and details of the patient's situation were required. In New Zealand, McGuinness et al. [283] used simulated patients to investigate the response of pharmacy staff to patients seeking a recommendation on vitamins and observed that no questions were asked in two thirds of cases. In Germany, Berger et al. [221] used two different scenarios in their simulated patient study. One scenario involved the patient requesting advice for a headache, whilst the other involved a patient who wanted to purchase a specific product. A difference in questioning was observed between the two scenarios. Whilst at least one question was asked to ensure proper self-diagnosis in 95% of the cases when the patient presented with a headache, this only occurred in 47% of the cases when the patient requested a specific product. Anderson et al. found that the majority of pharmacists asked the relevant questions when approached by simulated patients who were looking for emergency hormonal contraception (EHC) [30]. Pharmacists included in the study had been accredited by the Manchester, Salford and Trafford scheme and were expected to adhere to a protocol which contained criteria for inclusion and criteria for referral. It would seem that this protocol for dealing with specific scenarios resulted in increased questioning levels from pharmacists. However a New Zealand study by Norris et al. indicated that even where particular products required very specific questions to be asked as part of the selling protocol, such questions are not always asked [274]. Questioning protocols such as WHAMM have been established for

responding to symptoms in pharmacy. However, very little attention has been paid to the need to ask questions during health promotion interventions, despite an increasing emphasis on the delivery of health promotion in the community pharmacy.

Where questions were asked, they tended to be closed questions. This was also observed by Watson et al. [301] who found that even after two training sessions (four hours each) where the importance of open questions were emphasised, few consultations involved the use of open questions. This is an issue which needs to be considered in all types of consultations, not just those relating to weight.

A lack of questioning as part of the patient consultation is a phenomenon that has been discussed by Shah et al. [302], who suggested that pharmacist-patient communication was mainly defined as an information-giving activity. The authors put forward two models for the conceptualisation of the interpersonal communication process, the transmission model and the transaction model. The transmission model described the communication process as a linear, one-way process between the sender and receiver, where a signal is transferred from the sender to the receiver. In contrast the transaction model conceptualised communication as a two way, usually cooperative process, where shared meaning is negotiated between the two participants. In their review Shah et al. found that almost a half (49%) of the 39 studies that they reviewed defined pharmacist-patient communication solely as information related activity. The high proportion of pharmacy staff that provided information without asking questions in this study indicated that communication was generally a linear one-way process between the staff member and customer. Studies have demonstrated that providing training in the area of communication skills to pharmacy staff increases the level of questioning [234, 301].

Questioning is considered an integral part of all consultation models [303]. A model developed by Bird and Cohen-Cole [304] provided a framework for the three functions of consultations: gathering data to understand the patient; developing rapport and responding to the patient's emotions (to enable the patient to feel understood); and patient education and behaviour management. These functions relate to the three purposes and effects of communication: informative (to exchange information); promotive (to bring about action); and evocative (to arouse certain feelings). The Calgary-Cambridge model [305, 306] contains similar elements of gathering information, explanation and planning, whilst providing a structure to the consultation and building a relationship with the patient.



Although the relevance of such models is recognised in the context of consultations between patients and medical practitioners, their relevance is seldom discussed in the context of pharmacy based consultations, and they were not used as a framework for the consultations observed in this study.

This simulated patient study did not provide any information on why so few questions were asked during consultations. It did not appear to be related to time constraints, as some of the briefest conversations occurred with staff in empty pharmacies and some of the longest occurred in what appeared much busier pharmacies (although number of customers in the shop may not have correlated with the workload of the staff). From the focus groups (Chapter 3), some pharmacists said that they feared insulting the patient when asking about issues related to weight, but this should not have been a factor in this study, as it was the patient who initiated the consultation. It has been suggested that some pharmacy staff worry that a patient would find questioning intrusive [307], but again, this should not be the case in this instance, where the patient initiated the consultation by seeking advice from the staff member. Some staff may have interpreted the simulated patients' request simply as a request for a weight loss product and, in responding to that request, not considered it necessary to ask any further questions of the patient. This is evidenced by the fact that a number of staff members just stated that they did not stock any products that might help with weight control and seemed to feel that this fully addressed the patient's query. This indicated that some staff members saw the request only as a request for a product and did not identify the opportunity to provide health promotion advice. Regardless of the reason, it would appear that pharmacy staff failed to recognise the importance of the information retrieval from the patient in the case of a request for health promotion advice.

### **5.5.3 Providing Information**

Although the simulated patient scenario was structured as a query about weight control products, the majority of staff members did not recommend such products, with approximately half providing diet related advice and a third providing exercise related advice instead. This indicated that many staff members identified the opportunity for providing health promotion advice rather than selling a product. Indeed a number of staff members dissuaded the patients from buying such products stating that they did not feel that the products were effective. Where a product was recommended patients did not feel that they were being pressured to make a purchase. They stated that they wanted to think

about what they had been told and the staff members not only accepted this but often encouraged them to do so, sometimes providing written information on the product for them to read at home. This validated findings from the Focus Groups (Chapter 3) where pharmacists indicated that even when products were available for sale in their pharmacies, they did not feel obliged to sell them and frequently dissuaded patients from purchasing them. As discussed by Wingfield et al. [308], staff often do not have control over products which are stocked within pharmacies, particularly within chain pharmacies where such decisions are made by management or buying teams. However, it has been demonstrated that pharmacists' decisions on OTC drug therapy are often based on clinical and patient factors rather than commercial factors [309] and this was also demonstrated in this study. In cases where patients were dissuaded from using weight-control products, the professional relationship was clearly distinct from a business contract as discussed by Lamsam [275].

Whilst it was a positive finding that many staff members provided lifestyle information in response to the patients' requests, most of the information provided was generic in nature and was not tailored to the patient. Advice provided to both simulated patients was similar, despite the differences in their BMI. Comments such as "*Try to change your diet*" or "*eat healthily*" did little to provide guidance to the patients and were open to subjective interpretation. The fact that information tended to be generic rather than tailored for the patient was to be expected given the low level of questioning that was witnessed. Some of the statements, such as "*cut down on fat*" or "*eat smaller portions*" suggested that staff members were aware of the patient's current habits, and were therefore making recommendations for specific changes in habits. However it can be seen from the questions that were asked, that these aspects of the patients' diets had not been explored. Changes in practice were being advocated without regard to the patient's current practices, and appeared to be based on assumptions about patient behaviour. Similarly, most of the staff members who encouraged the patients to increase their exercise levels did so without making any effort to understand her current exercise habits. Although the results are not generalisable, other studies suggest that this is a feature of most communication in pharmacies. In a simulated patient study exploring the area of smoking cessation, Anderson found that pharmacists who had not received training in the area of health promotion talked a lot and did not allow the simulated patient any time to talk, compared with pharmacists who had received training [18]. Pilnick [310, 311] suggested that although interaction with a patient is frequently referred to as "patient counselling", it



seldom displays many of the principles associated with traditional counselling, for example those of non-directiveness and a commitment to a client-led agenda. This point is also made by Maguire [312], who stated that although pharmacists, as a profession, claim to provide patient counselling, they instead provide advice based on their professional knowledge and do little to support patients in finding their own solutions.

The emphasis on the advice giving role may be partially due to the fact that, traditionally, the pharmacist's role has been focussed on the provision of advice as part of medication-centred or task-centred practice. However, Possidente suggested that even when performing these traditional roles, adopting a more patient-centred approach can lead to improved outcomes such as medication adherence [313]. The increasing emphasis on health promotion will require pharmacists to switch to a more patient-centred practice which is independent of medicines or tasks [314, 315]. As well as requiring broad clinical and pharmaceutical knowledge, pharmacists increasingly require an awareness of psychological and social aspects of health and ill-health as well as good communication skills to ensure effective communication with patients or their carers [316-318]. The simulated patient study suggested that there was an opportunity for pharmacists to provide health promotion information in a more patient centred way. If pharmacists, or their staff, are to contribute to health promotion, they need to be trained in the area of influencing behaviour change in patients. The survey indicated that more information would be provided than was evidenced in practice, again indicating that surveys provide more favourable responses than occur in practice.

Over a quarter of staff members supplemented their verbal information with written information. However, in all but one pharmacy, this information supported the advertisement of a product. White et al. reported similar findings in the US, where 79% of leaflets in community pharmacies and general practices relating to hay fever were produced or sponsored by pharmaceutical companies and gave prominence to their own products [319]. The reliance on commercially produced written materials also emerged in the focus groups, where pharmacists expressed frustration at not knowing where to obtain HSE produced information leaflets. In comparison, commercially produced material was easily obtained from manufacturers. Commercial material serves as product advertisement rather than a source of impartial, accurate information [320] and may contribute to the image of community pharmacy as being a commercial business rather than a healthcare profession. In a recent discussion on the pharmacist's role in the provision of information,

Tomlin suggested that directories of information about health conditions, healthy living and social care need to be accessible to pharmacists and other healthcare professionals [321].

The simulated patient study raised the use of electronic information points in pharmacies. Two pharmacies had such a resource within the pharmacy but used them in very different ways. In one pharmacy, the simulated patient was directed to use the information point which was situated within the pharmacy, but found the information confusing. When she raised this concern with the staff member she was provided with no further guidance. In contrast, in the other pharmacy, the patient was informed that there was such a computer in the dispensary. Having listened to the patient's query, the staff member printed off the relevant information and supported it with verbal information. This latter approach appeared to represent a superior way of utilising these systems to complement the information provided by pharmacy staff rather than replacing it. It has been suggested that such information points are useful tools in community pharmacies and could lead to an increase in health promotion in pharmacy [322]. In a discussion of touch-screen, public-access kiosks, Jones suggested that information tailored using patients' medication records was preferred by patients and enabled patients to engage in more social support [323].

Some pharmacies did not provide any information, verbal or written, to the simulated patients. These cases represent lost opportunities to discuss the principles of weight control with the patient. Some staff members may have understood from the opening question that the patient was only interested in weight loss products, and for those who did not stock such products they may have felt that there were not in a position to help. However, the question reflected the reality of practice, and such requests provided opportunities to provide health promotion advice. Additionally, the survey by McEntee indicated that 63% of pharmacists would provide information on a proactive basis. This simulated patient study suggested that staff members were reticent to provide advice on weight control even when directly asked for advice, and, consequently it is unlikely that they would engage in opportunistic provision of health promotion advice.

Training has been shown to help pharmacists identify opportunities for health promotion [234]. Chandra et al. [252] considered who would be most appropriate to deliver such training to pharmacists. The authors commented that health promotion educators often spend a great deal of time in understanding and analyzing the social and behavioural



aspects of consumers' health whereas pharmacists spend more time in understanding the physiological and other scientific aspects. As a result, Chandra suggested that health promotion educators would be the most effective individuals to educate pharmacists about the various socio-behavioural aspects of the consumer. Although this seems like a rational conclusion, it is important to insert the caveat that any such health educators must be fully familiar with the unique nature of the pharmacy environment including the brevity of patient interactions, the lack of appointment structure and the lack of designated consultation time. These represent significant differences to many other health-professional led health promotion settings and are not always considered by health promotion educators. In addition, the study presented here indicated that such training should not be restricted to pharmacists but should also be extended to non-pharmacist staff also.

In general, during the simulated visits, no referrals were made to any other healthcare professionals. This was an expected finding as there are currently few structured referral pathways from pharmacy to other healthcare professionals. Although it was claimed in the focus groups (Chapter 3) that community pharmacy could serve as a useful gateway to the healthcare system, there are no formal processes by which this can be done within the Irish primary care team. In an Irish study [182], training in Brief Intervention Skills for smoking cessation was provided to staff of four Dublin-based pharmacies. As part of the programme, a system for referral to a local smoking cessation clinic was established. This was highlighted by participants as one of the key benefits of participation in the project and resulted in increased referral to the clinic. This multidisciplinary approach to healthcare could be further investigated in the area of weight control.

In general, there were no differences between consultations which were facilitated by pharmacists and non pharmacists. This contrasted to studies relating to over-the-counter scenarios, where pharmacists performed better than non-pharmacist staff [273, 284, 286]. In the focus groups (Chapter 3) many pharmacists reported that they had not received any formal training to deal with weight issues, and this may somewhat explain the similarities in consultations.

There was wide variation in the advice provided by different pharmacies but variation was also seen in the advice provided within the same pharmacy and on one occasion within the same visit. The detection of this variability by the simulated patient study highlighted the

advantage of this methodology over the use of surveys. Because the surveys only captured the responses of one individual in the pharmacy, they did not allow for the detection of differences in responses within the same pharmacy. Detection of this variability validated the findings of the pharmacist focus groups where lack of consistency between pharmacies was raised as an issue. Similar observations were made by Norris in a simulated patient study in New Zealand [274] and by Tully et al. in a review of studies of advice-giving in community pharmacies in the UK [291].

In order to counter this issue of variability, Tully [291] suggested that there was a need for a consensus-building forum to generate guidelines that meet shared expectations between clients, community pharmacists, government and the pharmaceutical industry. However, Watson et al. demonstrated that guidelines do not necessarily result in consistency [324]. In a study which combined interviews and surveys of pharmacy support staff with a simulated patient study, the authors found that even when pharmacy support staff were aware of good practice guidelines and thought their use was important, few consultations involving the supply of non-prescription medicines were fully guideline compliant. The authors concluded that reasons for non-compliance with good practice and professional guidelines needed to be explored. Similar issues were presented in this study. Whilst survey responses indicated that pharmacists knew that they should ask many of the recommended questions during a consultation on weight control, the simulated patient study demonstrated that these questions were generally not asked. De Almeida Neto et al. described how adherence to guidelines could be improved by a novel educational training programme for community pharmacists [325, 326]. Face-to-face training supported by on-site performance feedback using simulated patient visits was found to enhance adherence to guidelines and resulted in improvement of other aspects of the interaction, such as the use of open questions and assessing readiness to change. This represented an alternative to traditional pharmacist training methods.

Other authors have suggested that some of the features of community pharmacy can impact on patient consultations. Dickenson et al. [327] suggest that a reorientation of management philosophies is required by community pharmacy operators. Emphasis by management to minimise operating costs may result in pharmacists working as a “prescription producing factory rather than as a health professional providing patient services”, thus impacting on the quality of patient counselling. A study by Paluk et al. [245] documented an absence of reinforcing factors (financial or emotional) in most



pharmacies, and suggested that this should be addressed when providing training to improve the quality and frequency of pharmacist-client communication.

#### **5.5.4 Comparison of Survey with Simulated patient study**

In this study, considerable differences were observed between the results from the simulated patient study and those of the survey, particularly in relation to nature of the interaction between patients and pharmacy staff members. The average consultation time reported in the survey was longer than that observed, pharmacists reported asking more questions than were asked in practice and more pharmacists reported providing information on healthy eating and exercise than actually occurred in practice. McGuinness et al. also found differences between a simulated patient study and a structured pharmacist survey [283]. In the survey, a third of pharmacists thought that vitamins and minerals should only be sold for specific conditions where a vitamin deficiency could possibly be present. However in the simulated patient study of the same pharmacies, all but one of the 190 simulated patient visits resulted in the sale of a product to a patient who did not have any evidence of vitamin deficiency.

These results uphold the assertion by Caamaño et al. that surveys or interviews are not a reliable means of describing what happens in practice [223]. Caamaño considered the three dimensions of quality as described by Donabedian; quality of the structure, quality of the process and quality of the outcome [328]; and discussed these in the context of community pharmacy. They suggested that quality of structure referred to the characteristics of the pharmacy and its technical resources, the training and professional experience of human resources and opinions and attitudes towards the profession and the health system. Recommended data collection methods included questionnaires, interviews or focus groups. Caamaño et al. suggested that these techniques, whilst good measures of conditions, did little to indicate what happened in practice. Quality of the process was concerned with the advice given by pharmacists and assistants, the management of client personal data and the management of campaigns for health education and public health. It was suggested that these could be assessed by the use of self-completed records, external observers and simulated patients, with simulated patient studies providing the most accurate representation of actual practice. The quality of the outcome referred to the change in health status of clients that could be attributed to the advice and actions of the pharmacists and could be measured by questioning clients or by undertaking relevant client assessments. In this study, by assessing the nature of the interaction between patients and

pharmacy staff, the quality of process was investigated, and as suggested by Caamaño, simulated patient visits provided more accurate information than provided by surveys.

However there are some areas where similar results were obtained from both studies including demographics, the proportions of pharmacists who stocked weight control products and the number who provided leaflets to patients. In fact, the survey may have provided more accurate information than the simulated patient study in these cases, as the simulated patients found it difficult to make accurate observations on these features of the pharmacy during visits, particularly in the case of Simulated Patient B. Therefore, this study confirms Caamaño et al.'s suggestion that survey methodologies are appropriate to use when investigating the quality of structure (characteristics of the pharmacy, resources available etc) but may not be so suitable for investigating quality of process (characteristics of patient interactions). Most of the research conducted in Ireland in pharmacy practice research to date has relied on unvalidated pharmacist surveys, such as the one used in this study (See Chapter 1). Surveys are a fast, relatively inexpensive research method and raise fewer ethical concerns than simulated patient studies. However, they are limited in the information that they provide. If we are to truly understand the nature of patient interactions in Irish pharmacy there is a need for the increased use of observational methodologies.

### **5.5.5 Limitations**

Different methods are likely to throw light onto different social or ontological phenomena or research questions [230] and therefore caution must be exercised when results from different studies are compared. In this study, the simulated patient study assessed the patient-pharmacist interaction through direct observation, whilst the pharmacist survey assessed pharmacist perceptions of the patient-pharmacist interaction. Therefore, results from the two studies are not directly comparable. The differences between the results could be explained by the fact that the people who responded to the survey were not the people who responded to the simulated patient visits. It is possible that the survey respondents (all pharmacists) would in fact have spent longer with the patients, asked more questions and provided more lifestyle information than those who facilitated the visits (a mix of pharmacists and non-pharmacists). This is unlikely considering that there was no significant difference between the ways in which pharmacists and non-pharmacists dealt with the simulated patients. However, the fact that the two studies measured different features of the patient interaction presents a limitation to the comparison of results.



One of the significant limitations of this study was the time lag between the survey and the simulated patient study. Both studies should have been conducted at similar times to minimise the potential impact of changes in staffing or changes in practice within the pharmacies.

A further limitation of the study was that all of the pharmacies included in this study were in the greater Dublin area and it is likely that provision of advice might be different in rural locations [277, 292, 329]. The sample size used in this study was small and only two simulated patients were used, further limiting the generalisability of results [219]. All simulated patient visits were conducted on a Monday which may have had an effect on consultations [292]. This study was intended to be explorative, and the results can not be considered representative of community pharmacy in general.

The fact that only two simulated patients were used makes it difficult to determine if the differences in responses were as a result of the difference in weight, and they may have been as a result of other patient-specific characteristics. A larger number of patients (both normal weight and overweight) are required to understand if the difference was attributable to body weight.

Although some statistical analysis was conducted on results, the sample sizes involved were small. Fisher's exact test was used to counteract the difficulties posed by the fact that contingency tables contained exactly two rows and two columns, and that there were less than 50 cases [330].

Finally, the results from each of the simulated patient visits were dependent on accuracy of simulated patient reporting. Some of the aspects of the patient visits, such as duration and provision of written information, were validated by the accompanying researcher, but other aspects relied on accurate reporting by the simulated patients. This could be resolved by the use of video or audio recordings which would provide a more accurate means of analysing interactions. However this would raise further ethical issues and could also induce a Hawthorne affect, thus presenting further limitations.

## 5.6 Conclusion

This study was the first to use simulated patient methods to consider how patient queries relating to weight control were dealt with in community pharmacy. The findings demonstrated that patient interactions were facilitated by both pharmacists and non-pharmacists, and highlighted that these staff were not always distinguishable from each other. Few questions were asked during consultations with no efforts made to find out the patient's current weight status or to understand their current lifestyle habits. Therefore information provided tended to be general rather than tailored to the patient. Consultations involving the obese patient took longer on average those involving the patient with normal weight. Although some pharmacies recommended weight-control products, no such products were sold to the simulated patients. In fact some patients were dissuaded from purchasing a product, indicating that pharmacies did not operate like other retail environments.

The survey provided accurate information on certain characteristics of the pharmacies, such as demographics and whether or not weight loss products or information leaflets were stocked in the pharmacy. However, the survey did not provide accurate information on the nature of patient consultations. In general, the responses to the survey over-estimated the length of consultations, the number of questions asked and the amount of advice provided. Additionally, surveys only provided information on pharmacist responses. Between a quarter and half of the consultations in the simulated patient study were facilitated by non-pharmacist staff, and such consultations were not represented in the survey.

It can be concluded that the simulated patient study provided a more accurate insight into patient interactions in pharmacy than the survey. It is likely that the results from a McEntee's survey [167] overestimated the extent to which pharmacists provided lifestyle advice to customers. Further studies using simulated patient methods should be considered to develop a greater understanding of patient interactions within community pharmacy in Ireland, and survey results regarding pharmacist behaviours should be interpreted with caution.

This study indicated that there was wide variation in the patient experience in community pharmacies, an issue which has been raised in many international studies. This suggested that there is a need for greater consistency within the profession. In the area of weight control, the establishment of specific protocols in community pharmacies could help in



achieving such consistency. Any training initiatives in this area should be targeted at both pharmacists and pharmacy assistants. Such training should not only address the issues of patient assessment, the principles of weight control and the importance of behaviour change and motivation in weight control, but should also address the issue of facilitating effective patient consultations.





## **6 A Feasibility Study of a Weight-Control Programme in Community Pharmacy**

### **6.1 Introduction**

At the time of conducting this research (2006), few studies have evaluated pharmacy obesity programmes, despite assertions that community pharmacies could serve as ideal settings for such programmes [189, 331, 332]. Where studies had been conducted they had concentrated on screening [333] or have involved the use of a weight reducing medicine or meal replacement programmes [334-337].

In America, Malone et al. [334] undertook a study in which pharmacists received training in basic obesity management skills and actively sought to increase follow up with patients who were prescribed orlistat. Pharmacists in the intervention group were responsible for reminding patients to enrol in the Xenicare<sup>®</sup> programme (provided by the pharmaceutical manufacturer) and also contacted patients by phone two weeks after treatment was begun to monitor their progress and to provide advice to patients about limiting their fat intake to aid in the management of drug-related problems. No such interventions were made in the control group. There was no significant difference in weight loss between patients in the intervention group (average weight loss of 3.5kg) and control groups (average weight loss of 3.0kg).

Ahrens et al. [335] conducted a study to compare a Meal Replacement Programme (MRP) with a conventional Reduced Calorie Diet (RCD) for weight management using the pharmacist as the point of contact for dietary advice. Eighty eight patients were randomised to one of the two programmes and no training was provided to the pharmacists. Patients in the RCD group used a self-selected diet based on diabetic exchange. The MRP group followed a similar self-selected diet, except that two of the three main meals were replaced with a Slim-Fast<sup>®</sup> liquid meal replacement. No significant difference was found between the MRP group (average weight loss of 4.9kg) and the RCD group (average weight loss of 4.3kg). The study concluded that successful weight management could be achieved in the pharmacy setting and that both meal replacement and reduced calorie diets were effective.

A notable contrast to such product-led initiatives within community pharmacy was the weight reduction service which was established in Denmark in 1994 where about a quarter

of all pharmacies offered weight loss courses to the public [338]. This programme was commissioned by Pharmakon, Danish College of Pharmacy Practice upon request from Danish pharmacies for a common concept for pharmacy-based weight reduction groups. Pharmacy team leaders (usually one pharmacist and one or two pharmacy assistants) from each pharmacy attended a two-day compulsory training course developed by Pharmakon. This training covered the topics of overweight and obesity, physical activity, healthy diet as well as providing information on practical issues such as organising the groups and marketing the programme. A manual was designed by Pharmakon for the team leaders with guidelines and advice on implementation of the programme. Marketing material and literature were also provided. Two different models were developed - a group based model and an individual based model. The group model was evaluated in a retrospective study of nineteen pharmacies between February 1994 and July 1995 [37]. Groups were made up of between eight and twenty people and were facilitated by the pharmacy team leaders. One hundred and ninety one participants completed the weight reduction programme (71% of those who started) and achieved an average weight loss of 5.3 kg and 6.3 kg among females and males respectively after twelve weeks. The programme involved eight 1.5 hour education sessions in nutrition and exercise aiming for a dietary change toward a low-fat, high carbohydrate diet. The study demonstrated that pharmacies could serve as a setting for addressing weight issues and could provide interventions at low cost and with results comparable to results from interventions with other health professionals.

Traditionally pharmacies in Ireland have supported weight control through the supply of weight control medicines on prescription and through the sale of vitamins, minerals and supplements as non-prescription items. Other, non-pharmaceutical products, devices and services purporting to aid weight control, such as Slendertone<sup>®</sup> [339] and Lipotrim<sup>®</sup> [340], are also supplied in pharmacies. As a result of these activities, pharmacies are identified as places where advice about diet and weight control could be obtained.

One Irish pharmacy has reported involvement in weight-management clinics without the associated sale of dietary products and has provided guidelines for other pharmacists interested in increasing their involvement in the area [294]. However the success of this programme was not evaluated [341] and the guidelines provided were very general in nature. In the focus group study (Chapter 4), pharmacists expressed a willingness to engage with the public on these issues, but indicated that they would welcome the development of a coordinated programme to ensure a consistent approach.



## **6.2 Aims and Objectives**

The aim of this study was to explore the feasibility of delivering a pharmacy led weight reduction programme through community pharmacy.

The objectives were:

- To develop a community pharmacy based weight management programme
- To use “before and after” analysis to assess weight loss achieved by participants over three months
- To identify considerations which should be addressed in running future weight management programmes within community pharmacy

## **6.3 Methods**

### **6.3.1 Selection of the Pharmacy**

Agreement was obtained from Boots the Chemist to use one of their pharmacies for the purpose of this study. This had the advantage of giving the researcher, an employee of Boots, control over the operational procedures and use of resources in the pharmacy. The pharmacy was chosen because staff had expressed interest in increasing their involvement in weight control. The pharmacy was one of the busiest within the company in relation to over-the counter sales, prescription sales and non-pharmacy related sales. It was situated in a busy shopping centre which was surrounded by housing estates in a lower working class area. There was a wide variety in the type of patients who used the pharmacy, with a mix of regular patients and passing trade. Two full-time and one part-time pharmacist (2.5 Full Time Equivalents) and one pre-registration pharmacist were employed in the dispensary which had extended opening hours (80 hours per week). A small, open-plan, consultation area was situated beside the dispensary. This was used by the pharmacy team for conducting patient consultations which required privacy and for the supervision of methadone administration.

### **6.3.2 Development of Programme Materials**

A review of health education and health promotion literature identified several key strategies for the development of an effective healthcare professional-led health education programme. These included targeting those ready to change, facilitating self-empowerment, providing one-to-one support as well as providing opportunity for group support, facilitating multifaceted interactions and supplementing interventions with good quality written information [4, 6, 14, 298, 342, 343].

A weight control programme was developed which included a combination of patient interactions with a pharmacist, group meetings with a dietician and access to gym facilities. Weight control was based on creating a negative energy balance. Patients were educated on the relationship between energy intake and expenditure and encouraging self-management through dietary control and exercise. A series of workbooks were developed which guided both the pharmacist and patient through the programme.

The North Eastern Health Board's (NEHB) *Stages of Change Lifestyle Behaviour Change Tool* [344] was used, with permission of the authors [345], to provide a framework for the feasibility programme. The *Stages of Change Lifestyle Behaviour Change Tool* was based on Prochaska and DiClemente's Transtheoretical Model [195] and provided guidance to healthcare professionals on supporting behaviour change in patients in consultations with patients. These materials had been piloted by three dieticians in the NEHB, who reported that the tool increased the effectiveness of 85% of their consultations [346].

These NEHB materials were adapted to develop a range of workbooks to help both pharmacists and patients to collaboratively work their way through the programme. These workbooks incorporated information and activities to address the nine processes involved in the Transtheoretical model [195]: consciousness-raising, social liberation, emotional arousal, self-re-evaluation, commitment, reward, countering, environment control and helping relationships (Table 6-1). Activities were primarily designed for self-completion by the patients, the outcomes of which were subsequently discussed with the pharmacy team.

Five workbooks were developed, each containing process-related activities appropriate for different stages of the Transtheoretical model (Table 6-2). They combined a mixture of information and activities.



<b>Process</b>	<b>Goals of process</b>	<b>Stages of change in which process is used</b>
Consciousness-Raising	Increasing information about self and problems	Precontemplation, Contemplation
Social liberation	Increasing social alternatives for behaviours that are not problematic	Precontemplation, Contemplation Preparation Action
Emotional Arousal	Experiencing and expressing feelings about one's problems and solutions	Contemplation, Preparation
Self-Reevaluation	Assessing feelings and thoughts about self with respect to a problem	Contemplation, Preparation
Commitment	Choosing and committing to act, or belief in ability to change	Preparation, action, Maintenance
Countering	Substituting alternatives for problem behaviours	Action, Maintenance
Environment control	Avoiding stimuli that elicit problem behaviours	Action, Maintenance
Reward	Rewarding self, or being rewarded by others, for making changes	Action, Maintenance
Helping Relationships	Enlisting the help of someone who cares	All stages

**Table 6-1 Summary of the change processes involved in the Transtheoretical Model**

The workbooks formed the core of the programme and were intended to serve a dual role as prompts for pharmacists during patient interactions and workbooks for patients for completion at home. They were therefore written in language that was directed at the patient [347]. A range of other resources were also used throughout the programme including HSE health promotion leaflets, a recipe book which was produced by the Mid-Western Health Board [348], pedometers, Boots "Change One Thing" weight control packs and diet and exercise record sheets (as outlined in Table 6-3). Most of these resources were obtained through personal contacts within various health boards. The Health Promotion Unit was contacted to obtain relevant HSE health promotion leaflets, but they indicated that they were unwilling to send "*so many leaflets*" to one pharmacy (20 copies of each leaflet had been requested) and consequently only sent a small collection of leaflets.

Title of Workbook	Topics covered within each booklet
Introduction booklet	Information on the programme
Am I ready to change?	Am I ready to make changes? What is fat? How did I become over-weight? How can I lose weight? The benefits of losing weight Who can help? What are my options? The next visit to the pharmacy
Thinking about changing	How much weight do I want to lose? What will make it difficult to lose weight? What can I do to make it easier? Make this a priority Eating & Drinking habits <ul style="list-style-type: none"> <li>▪ My reasons for eating and drinking</li> <li>▪ How can I change my eating and drinking habits?</li> </ul> Exercise <ul style="list-style-type: none"> <li>▪ What exercise do I do?</li> <li>▪ My reasons for not doing more exercise.</li> <li>▪ How can I increase my exercise?</li> </ul> The next step
Making my plan	Review the benefits of losing weight Rewards Create a Plan <ul style="list-style-type: none"> <li>▪ Step 1 – Changing eating habits</li> <li>▪ Step 2 – Increasing exercise</li> <li>▪ Step 3 – How will this fit with my life?</li> <li>▪ Step 4 – What are the possible stumbling blocks</li> <li>▪ Step 5 – Reward</li> </ul> Have a start date Tell people about your plan How to make things easier
Putting my plan into action	Congratulations Things to make it easier So what next?
Relapse	What happened? What have I learnt? What will I do differently next time?

**Table 6-2 Summary of workbooks developed for Pharmacy weight loss programme.**



<b>Summary of resources used in weight-control programme</b>		<b>Developed by</b>
Pack 1: Introduction pack	Welcome note	Boots/Research team
	“Introduction” booklet	Research team
	Pedometer	Boots the Chemist
	“How healthy is your lunch?”	HP Department, HSE
	“Facts on Chips”	HP Department HSE
	“101 Square Meals” Recipe Book	Health Board - Mid West
	Application form for SanoVitae gym	Sano Vitae gym
	Food and exercise diary x14	Research Team
Pack 2: Pre-contemplation	“Am I ready to change?” booklet	Research team
	“What’s your portion.....Size matters”	Health Promotion Unit
	“What is blood pressure all about?”	Irish Heart Foundation
	What is Cholesterol All About?	Irish Heart Foundation
	“Are you ready to lose weight?”	Health Promotion Unit
	“Get a life, get active”	Health Promotion Unit
	“Good eating for a happy heart”	Irish Heart Foundation
	Food and exercise diaries x14	Research team
Pack 3: Contemplation	“ Thinking about changing” booklet	Research team
	Boots “Change One Thing” pack :getting fit, eating well, losing weight	Boots the Chemist
	Vegetables – because Fast Food comes Naturally	Health Promotion Unit
	Food and exercise diaries x 14	Research Team
Pack 4: Preparation	“ Making my plan” booklet	Research team
	“How to get started. Let’s go, Lose weight”	Health Promotion Unit
	“Get Active for a Happy Heart”	
	“Get a life, get active, go walking”	Health promotion Unit
	“My Weekly Plan” x2	Research team
	Food and exercise diaries x 14	Research team
Pack 5: Action	“ Putting my Plan into Action”	Research team
	“My Weekly Plan” x2	Research team
	Food and exercise diaries x 14	Research team
Other materials, to be provided as required	“Relapse” booklet	Research team
	“Healthy Eating for Children”	Health Promotion Unit
	“My Weekly Plan” x2	Research team
	Food and exercise diaries x 14	Research team
Materials provided by dietician at group session	“Sample Meal Plan”	HSE dietician
	“How do I know if I need to lose weight?”	HSE dietician
	“The Food Pyramid”	HSE dietician
Materials used by pharmacy team	Healthcare Staff instructions for patient follow up	Research Team
	Pharmacists instructions for patient follow up	Research Team
	Food Diary analysis instructions & assessment sheet	Research Team
	Record of packs provided	Research Team
	Record of Contact & measurements	Research Team
	Initial consultation plan & record	Research Team

**Table 6-3 Summary of the resources used in weight control programme**

The materials were developed to suit people with a range of communication preferences using Neurolinguistic Programming techniques [349-351]. To appeal to those with a visual preference, information was presented using a combination of text, graphs, diagrams, pictures and tables in the workbooks. Other visual aspects of the programme included a visual representation of their weight loss (using sugar-bags), models of the food pyramid during the group sessions and other visual aids in the form of posters, leaflets and booklets. For those with an auditory preference, patients were prompted to discuss their plans with others and to seek advice in person from the pharmacy team. People with this preference would be expected to prefer talking to the pharmacist, the dietician and the exercise experts about their plans. The workbooks provided many prompts for them to do this and the group sessions also provided opportunities for discussion. For those with a kinaesthetic preference, various activities were incorporated into the workbooks where patients were prompted to think about their experiences, reflect on their own behaviours and try new activities. Gym membership, recipe books, pedometers, group sessions and regular measurements would also be likely to engage these patients. As a result of consideration of communication preferences, it was felt that patients with different preferences would have been stimulated by the range of learning activities within the programme. A draft programme was reviewed by the HSE dietician and two pharmacists and comments were incorporated.

A complete set of resources, as per Table 6-3, was compiled in a separate folder for each patient and stored in the pharmacy. The pharmacist provided the materials that they felt were most suitable from the pack to each patient as appropriate and updated this folder with a brief report of the interaction at each visit. These folders were stored in an allocated space in the dispensary.

### **6.3.3 Training of Staff**

Approximately five hours of training were provided to one of the pharmacists and to the pre-registration pharmacist. The principles of the programme were explained and training was provided on the Transtheoretical model and on programme implementation. Guidance was provided for measurement of BMI, waist circumference, body fat percentage and blood pressure. Measurements were observed initially to ensure internal consistency. This training was cascaded by the trained pharmacists to the other pharmacists working in the pharmacy. All pharmacists involved in the initial and final measurements were assessed for compliance with measurement protocols by the researcher.



A training document was developed to assist pharmacists in briefing the programme to non-pharmacist staff. Although these staff members were not included in the interventions they were involved in making appointments for participants and it was anticipated that they would encounter the participants in the pharmacy during the study. It was therefore considered important that they were aware of the programme and what it involved. They were also trained in measuring weight and waist circumference so that non-pharmacist staff could facilitate interim measurements if pharmacists were unavailable.

#### **6.3.4 Recruitment and Selection of Participants**

A poster was placed at the dispensary counter in the pharmacy inviting customers to participate in a weight control study. Pharmacy and healthcare staff also made customers aware of the programme if asked about weight loss. Interested patients were provided with written information and were required to complete an application form and return it to the pharmacy. Applicants were asked to indicate that they were happy for their GP to be contacted to discuss their application. Application forms were available on the pharmacy counter.

Each form was assigned a numeric identifier to ensure anonymity in the selection process. Twenty applicants of a range of ages and BMIs (as reported in the application form) were selected for inclusion in the programme by the pharmacy team. The only inclusion criterion applied was to have a BMI over  $25\text{kgm}^{-2}$ . No exclusion criteria were applied.

Following selection of participants, the pharmacy sent a letter to each GP asking if they were happy for their patient to be included in the study. Patients were then formally offered a place on the programme and were asked to provide consent to the terms of the programme.

#### **6.3.5 Administration of the Programme**

Participants were invited to attend a one hour induction, which comprised of a 30 minute consultation with a pharmacist and a 30 minute group session. During the pharmacist consultation, baseline measurements for weight, height, waist circumference, blood pressure and body fat were taken ( $t_0$ ). Each patient's "readiness to change" was assessed through questioning. Pharmacy staff gained an understanding of the patient's motivations and concerns and explained the structure of the programme

After the initial consultation, patients decided on the frequency of contact with the pharmacist, but were recommended to come to the pharmacy at least every second week. If a patient was absent for longer than this time they were contacted by telephone.

The programme mainly involved one-to-one contact between each patient and a pharmacist. The programme was tailored to each patient by providing booklets and information relevant to the individual at appropriate time-points and by reviewing diet and exercise sheets and action plans. In consultation with the pharmacist, patients set their own targets and their own preferred methods and timescales for weight loss. A 40 minute group session was organised in Week 6, when a HSE dietician provided information and answered questions. An induction was also held in the gym to show participants how to use the gym facilities. Appointments were recorded in a diary which was held in the dispensary.

### **6.3.6 Inter-professional Contact**

A HSE dietician was contacted before materials were developed for the programme. She provided comments on the material development, spoke to members of the pharmacy team and attended a group information session based in the pharmacy at week 6.

A letter was sent to each patient's GPs informing them of the programme and asking them to state that they were agreeable to their patients to participate in the programme. Patients were informed that their GP was being contacted.

### **6.3.7 Outcome Measures**

The study was conducted over three months with start ( $t_0$ ) and end point ( $t_3$ ) measurements taken for weight, height, waist circumference, systolic and diastolic blood pressure, percentage body fat and waist to hip ratio. Height measurements were taken using a wall mounted height measure scale. Weight measurements were taken using a Boots commercial weighing machine. This was serviced and calibrated at the start of the study and was checked on a daily basis to ensure accuracy. BMI was calculated by the pharmacist using the height and weight measurements taken. Waist circumference measurements were to be taken at the point of the "narrowest waist". However, during training, pharmacists felt that this might not be identifiable in some patients, and was likely to result in subjective opinions on where the narrowest point was. On consultation with the dietician it was decided that a more pragmatic approach should be taken and as a result all measurements were taken at the level of the belly button.



Interim measurements of weight and waist circumference were taken at intervals determined by the patient, but not included in analysis. Blood pressure measurements were taken using an Omron 705 - IT Digital Automatic Blood Pressure Arm Monitor [352]. Body fat percentage was calculated by bioimpedence analysis using a Salter 9140 Body Analyser Scale.

Analysis was done on an intention to treat basis to prevent potential biasing of results due to attrition [353, 354]. For participants who dropped out before three months, the last recorded measures were used. For weight, BMI and waist circumference this was the measurement taken at their last visit to the pharmacy and for blood pressure, waist to hip ratio and percentage body fat this was the measurement taken at  $t_0$ . Wilcoxon signed-ranks test for two related samples was used to compare changes in continuous dependent variables between  $t_0$  and  $t_3$ .

### **6.3.8 Process Measures**

Records of patient contact were maintained by recording duration and frequency of pharmacy visits by participants, number of phone calls made by the pharmacy team and number of gym visits by participants. Pearson's Correlation coefficient was used to test for correlation between process measures and outcome measures. All tests were two-tailed. Comments made by patients during the study were also documented.

## **6.4 Results**

### **6.4.1 Recruitment**

One hundred and twenty eight application forms were taken from the pharmacy by customers during a fifteen day recruitment process and forty five forms were completed and returned. The majority of those who applied were women with only one male applicant. From the reported weights provided in the application form, 33% of applicants were overweight, 42% were obese and 25% were morbidly obese. Just over half of the applicants were using prescribed medication with one quarter of these using medications for contraceptive purposes only. The remaining 43% of patients were taking no medication. Twenty applicants of a range of ages and BMIs (as calculated from reported weight and height in the application form) were selected for inclusion in the programme.

Only one male applied for participation and he was included in the study group. During the initial group induction he stated that his wife had applied on his behalf and that he had not been aware that he would be the only male on the programme. He indicated that he did not wish to participate in the programme. Because this individual had not yet provided consent to be involved in the programme, and did not participate in any intervention, he was considered a non-starter rather than a participant who had dropped out. This reduced the intervention group to nineteen.

Using the information provided by the applicants in their application forms, 6 of those selected were anticipated to have a BMI in the overweight range, 7 were anticipated to have a BMI in the obese range and 6 were anticipated to have a BMI in the morbidly obese range. However average BMI, as measured at  $t_0$ , was significantly greater than the average BMI as calculated from the reported height and weight values (Average difference of  $0.82\text{kgm}^{-2}$   $p=0.004$ ). This was due to an underestimation of weight by participants when completing the application form as significant differences were observed between reported weight and actual weight but not between reported height and actual height. As a result fewer patients with weight in the overweight range and more patients with weight in the obese range were included in the study than anticipated (Table 6-4). The average age of participants was 42 years (Range 26 years to 62 years).

<b>Characteristics</b>	<b>Categories</b>	<b>Number (n)</b>
Sex	Male	0
	Female	19
Age	20-29 years	4
	30-39 years	4
	40-49 years	6
	50+ years	5
BMI	25-29.9 $\text{kgm}^{-2}$	4
	30-34.9 $\text{kgm}^{-2}$	8
	>35 $\text{kgm}^{-2}$	7

**Table 6-4 Demographic characteristics of participants**

Twelve of the study participants were taking regular medication as outlined in Table 6-5. Five of these were taking weight reducing medications (2 overweight, 2 obese and 1 morbidly obese patient).



<b>Patient Number</b>	<b>Medication being taken</b>
1	Xenical® (Orlistat) Yasmin® (Ethinylestradiol & Drospirenone)
2	Eltroxin® (Levothyroxine sodium) Cipramil® (Citalopram) Pariet® (Rabeprazole sodium) Lomotil® (Diphenoxylate hydrochloride & Atropine sulphate)
3	Marviol® (Desogestrel & Ethinylestradiol) Reductil® (Sibutramine)
4	Seretide® (Salmeterol & Fluticasone propionate) Salamol® (Salbutamol) Efexor® (Venlafaxine)
5	Pariet® (Rabeprazole sodium) Ideos® (Calcium carbonate & Cholecalciferol) Actonel® (Risedronate sodium) Detrusitol® (Tolterodine)
6	Reductil® (Sibutramine)
8	Warfant® (Warfarin) Lipitor® (Atorvastatin) Coversy® (Perindopril) Losec® (Omeprazole) Seretide® (Salmeterol & Fluticasone propionate) Spiriva® (Tiotropium) Combivent® (Ipratropium bromide & Salbutamol) Xenical® (Orlistat)
10	Xenical®(Orlistat) Seroxat® (Paroxetine)
12	Apirin Nu Seals® (Aspirin) Imdur® (Isosorbide mononitrate) Atecor® (Atenolol) Protium® (Pantoprazole) Lipitor® (Atorvastatin)
14	Tenoret® (Atenolol & Chlortalidone)
16	Lipitor® (Atorvastatin) Ezetrol® (Ezetimibe)
18	Lipitor® (Atorvastatin)
Participants no. 7, 9, 11, 13, 15, 19 & 20 were not taking medication	

**Table 6-5 Summary of regular medication being taken**

Four participants dropped out over the three months (21%). The reasons for drop out and a summary of the duration of participation for each participant are outlined in Table 6-6.

Participant number	Duration of involvement (weeks)	Number of pharmacy visits to the pharmacy (n)	Number of follow up phone calls (including unanswered attempts)(n)	Reason for quitting
2	11	4	3*	Family crisis
4	11	5	7	Decline in mental health
7	10	8	7	(1) Did not like documenting food diary (2) Too busy
19	9	3	8	(1) Did not like documenting food diary (2) Lost motivation

\*Low number of follow ups due to the fact that participant was on holidays for four weeks

**Table 6-6 Details of participants who dropped out from the study**

### 6.4.2 Outcome Measures

Using intention to treat analysis an average weight loss of 3.08kg was achieved (Range: +4 to -7.2kg,  $p < 0.001$ ), with an average reduction in waist circumference of 5.03cm (Range: 0 to -16.6cm,  $p < 0.001$ ) and an average reduction in BMI of  $1.16 \text{ kgm}^{-2}$  (Range: +1.5 to  $-2.9 \text{ kgm}^{-2}$ ,  $p < 0.001$ ). The average percentage weight reduction (weight reduction as a percentage of original weight) was 3.58% (Range: +2.84 to -7.69%). Almost one third of patients achieved or exceeded the 5% weight reduction target set by the National Obesity Task Force and 42% achieved the recommended 5-10 cm reduction in waist circumference (Table 6-7). Analysis of the fifteen participants remaining in the study at the end point yielded more positive results with an average weight loss of 3.55kg (Range: -0.4 to -7.2kg,  $p < 0.001$ ), an average reduction in waist circumference of 6.29cm (Range: -0.8 to -16.6cm,  $p < 0.001$ ) and an average reduction in BMI of  $1.4 \text{ kgm}^{-2}$  (Range -0.15 to  $-2.9 \text{ kgm}^{-2}$ ,  $p < 0.001$ ). The average percentage weight reduction (weight reduction as a percentage of original weight) was 4.1% (Range: -0.49 to -7.69%).

Two patients could not have  $t_0$  blood pressure measurements because the cuff on the blood pressure monitor was too small. A larger cuff was ordered, and their blood pressure subsequently taken, but these measurements were not included in the study results as it did not represent blood pressure measurements at  $t_0$ . It was assumed that no change in blood pressure was seen for these patients. Systolic BP was reduced by an average of 8mmHg (Range: 11mmHg increase – 50mmHG decrease,  $p = 0.092$ ) and diastolic BP was decreased by an average of 5.74mmHg (Range: 4mmHg increase – 23mmHg decrease,  $p = 0.004$ ).



Patient Number	Initial BMI	Change in weight (kg)	Change in BMI (kgm <sup>-2</sup> )	Change in waist circumf (cm)	% weight change	Change in diastolic BP (mmHg)	Change in systolic BP (mmHg)	Change in hip to waist ratio	Change in body fat %
1	38.70	-7.20	-2.88	-9.60	-7.45	-7.00	10.00	-0.01	-1.00
2	34.16	-5.20	-1.70	0.00	-5.01	0.00	0.00	0.00	0.00
3	28.93	-2.60	-1.07	-3.80	-3.69	-10.00	-31.00	-0.01	1.00
4	53.65	4.00	1.52	0.00	2.84	0.00*	0.00*	0.00	0.00
5	30.56	-0.40	-0.15	-0.80	-0.49	-14.00	-28.00	0.02	-2.00
6	32.84	-3.80	-1.40	-16.60	-4.25	-7.00	-21.00	-0.11	-1.00
7	34.41	-4.00	-1.35	-1.30	-3.93	0.00	0.00	-0.01	0.00
8	33.33	-2.00	-0.90	-7.50	-2.70	-23.00	-50.00	-0.01	-1.00
9	31.87	-6.80	-2.22	-12.10	-6.97	0.00	4.00	-0.07	-2.00
10	29.45	-5.80	-2.27	-5.90	-7.69	4.00	0.00	-0.02	-6.00
11	36.82	-1.80	-0.77	-3.40	-2.09	-15.00	-10.00	0.01	-2.00
12	35.20	-2.60	-1.11	-6.85	-3.16	-13.00	-32.00	-0.03	-1.00
13	26.90	-4.40	-1.68	-3.80	-6.23	-6.00	-4.00	-0.01	-1.00
14	34.33	-3.40	-1.18	-2.30	-3.43	-3.00	-4.00	-0.01	0.00
15	34.06	-0.40	-0.19	-4.20	-0.54	-9.00	11.00	-0.02	-1.00
16	28.65	-4.40	-1.62	-4.20	-5.64	-6.00	-1.00	-0.01	-5.00
18	37.11	-3.40	-1.33	-6.30	-3.58	0.00	4.00	0.00	-2.00
19	39.12	-0.20	-0.08	0.00	-0.20	0.00	0.00	0.00	0.00
20	44.38	-4.20	-1.68	-7.00	-3.79	0.00*	0.00*	0.05	0.00
<b>Average</b>		<b>- 3.08</b>	<b>- 1.16</b>	<b>- 5.03</b>	<b>- 3.58</b>	<b>- 5.74</b>	<b>- 8.00</b>	<b>- 0.01</b>	<b>- 1.26</b>

\*Patients who did not have initial BP measurements taken due to small cuff  
Grey rows indicate patients who dropped out of study

**Table 6-7 Summary of outcome measures for participants.**

One patient could not have percentage body fat measured because her reading exceeded the limit of the machine (50%). It was assumed that there was no change in body fat % for this patient. Average reduction in percentage body fat was 1.26% (Range: +1 to -6%, p=0.003). Average waist to hip ratio was reduced by 0.013 (Range: +0.05 to -0.11, p=0.03). Pharmacists reported that this measure was more difficult and time consuming to perform than waist circumference. There was some correlation between percentage weight loss and waist circumference (r=0.5, p=0.05 two tailed) but not between percentage weight loss and blood pressure or waist to hip circumference.

There were some differences noted between the weight and percentage weight lost by participants who were overweight, obese and morbidly obese, as per Table 6-8, with those in the overweight category achieving an overall greater percentage body weight reduction and a greater absolute weight reduction than participants in the other two categories.

	<b>Overweight</b>	<b>Obese</b>	<b>Morbidly obese</b>
<b>Average weight lost</b>	4.3kg	3.25 kg	1.83kg
<b>Average percentage weight lost</b>	5.8%	3.4%	2.5%
<b>Number (%) of patients within each range achieving target <math>\geq 5\%</math> weight loss</b>	3 out of 4 (75%)	2 out of 8 (25%)	1 out of 7 (14%)

Table 6-8 Summary of weight loss achieved by patients in different BMI categories

### 6.4.3 Process Measures

In addition to the group sessions and the initial induction, a total of 129 patient consultations were facilitated during the study, with an average number of 6.8 consultations per participant (Range: 3 – 13 visits) (Table 6-9).

<b>Patient number</b>	<b>Weight change (%)</b>	<b>Number of visits (n)</b>	<b>Total consultation time (min)</b>	<b>Average consultation time (min)</b>
1	-7.45	13	350	26.92
2	-5.01	4	100	25.00
3	-3.69	10	260	26.00
4	2.84	5	160	32.00
5	-0.49	6	230	38.33
6	-4.25	7	200	28.57
7	-3.93	8	250	31.25
8	-2.70	7	285	40.71
9	-6.97	6	160	26.67
10	-7.69	6	180	30.00
11	-2.09	7	215	30.71
12	-3.16	8	255	31.88
13	-6.23	7	215	30.71
14	-3.43	4	175	43.75
15	-0.54	6	170	28.33
16	-5.64	10	265	26.50
18	-3.58	6	180	30.00
19	-0.20	3	120	40.00
20	-3.79	6	170	28.33
<b>Average</b>	<b>-3.58</b>	<b>6.79</b>	<b>207.37</b>	<b>31.35</b>

Grey rows indicate patients who dropped out of study

Table 6-9 Summary of process measures for each participant

The majority of consultations were pre-booked, which facilitated management of workload. If a participant came to the pharmacy without an appointment and if a pharmacist was unavailable to meet with them at that time, other members of the team facilitated weight and waist measurements and provided participants with the next pack in the programme where appropriate. Completed food and exercise diaries were taken from



the participant and an arrangement was made for the pharmacist to follow up by phone or for the participant to come back to the pharmacy at an appointed time to speak to the pharmacist.

The average duration of consultation decreased over the duration of the project as demonstrated in Table 6-10 ( $r = -0.833$ ,  $p=0.01$ ). The total time spent by the pharmacy team on consultations was 3940minutes (65.6 hours) with an average of 207min (Range 100 min – 350 min) spent with each patient. This equated to an average of 17.3 minutes per week per patient. There was evidence of some correlation between the percentage weight lost and the number of visits undertaken with each participant ( $r = 0.44$ ) but not between percentage weight lost and total consultation time with each participant ( $r = 0.28$ ).

Consultation number	Average consultation duration (min)
1	41.6
2	38.2
3	30.8
4	30.8
5	19.1
6	28.7
7	29.4
8	23
9	16.7
10	20
11	20*
12	20*
13	20*

\*note: visits 11, 12 and 13 are attributable to participant number 1

**Table 6-10 Summary of average consultation durations**

The majority (approximately 80%) of consultations were facilitated by one member of staff (pre-registration pharmacist) who also took responsibility for coordination of the programme including follow up of non-responders and maintaining records. This member of staff was involved in much of the initial contact with participants and as a result became the perceived point of contact with participants. Many participants commented that they felt that they had developed a relationship with this individual over the course of the programme.

A total of 95 phone calls were made by the pharmacy to participants resulting in an average of 5 calls per participant (Range 1 – 12). These included returning calls from participants and following up on missed appointments. There was moderate negative

correlation observed between the percentage of weight lost and the number of phone-calls made ( $r=-0.557$ ,  $p=0.05$ , two tailed) suggesting that those who were phoned most frequently by the pharmacy team tended to lose less weight. This is not unexpected as the patients who missed their appointments were the ones who were most likely to be called by the pharmacy as evidenced by the negative correlation seen between the number of phone calls made to each patient and the number of visits made by each patient to the pharmacy ( $r= -0.463$ ,  $p=0.05$ ).

An average of 10 visits were made to the gym (Range 0 – 43 visits) and a moderate degree of correlation was seen between the number of visits made to the gym and percentage weight loss ( $r=0.48$ ,  $p=0.05$ ). There was mild correlation between the number of pharmacy consultations and gym visits per patient ( $r=0.45$ ). Some participants reported undertaking other physical activity outside of the gym. For example participant #20 could not visit the gym frequently due to family commitments but purchased exercise equipment for her home so that she could exercise regularly.

#### **6.4.4 Participant Comments**

Some participant comments were recorded throughout the programme. Whilst some commented that they found the weekly planner tool and the diet and exercise charts very useful, others reported that they found it very time-consuming to fill these out on a daily basis. A number of participants commented that they found the telephone contact with the pharmacy a useful support. One patient phoned the pharmacy whilst on holidays in Cyprus and found that this helped her to adhere to her plan whilst on holidays. A number of participants commented that the group session with the dietician was very helpful and that they enjoyed meeting as a group.

Some participants provided examples of how involvement in the programme had resulted in changes in lifestyle. One participant said that she no longer ate at the canteen in her workplace, but instead home-prepared food to work instead. She also reported drinking alcohol on seldom occasions rather than daily as she had previously done. Another remarked that her partner had told her that she had stopped snoring since she lost weight and also reported walking her children to and from school; *“I now walk my children to school every day – something I would never have done before..... we actually enjoy it”* (#20).



Some participants commented that they liked the fact that the programme was based in the pharmacy, because of its informality and accessibility. A number made specific reference to the written materials that had been provided during the programme, stating that they found them useful. Comments were also made about the free gym membership which formed part of the programme, and this was generally viewed as a positive aspect of the programme.

Comments were sought at the end of the programme, asking what they had found good about it, if they felt that the pharmacy setting was appropriate for such a programme and any suggestions they would have for improvement. These comments are summarised in Table 6-11.

#### **6.4.5 Comments from Healthcare Professionals**

The HSE dietician commented positively on her involvement in the programme. As a result of her involvement in the programme she initiated the development of a “Weight Management Pack for Health Professionals” from the HSE, incorporating many aspects of the feasibility study. This was developed with the intention of distributing it to a range of healthcare professionals, including pharmacists, within the Eastern Health Board Area.

Of the twenty GPs contacted, eighteen agreed to their patient’s involvement in the programme. Of the remaining two GPs, one stated that he was not happy for his patient to participate in the programme. He stated that he had not been informed about the programme prior to receipt of the letter, was not happy to consent to something that was not under his control and believed that pharmacy was not an appropriate setting for a weight management programme. The patient was informed of this decision but insisted that she wanted to participate in the programme. The other GP was not happy to agree to his patient’s participation in the programme until a medical examination was carried out. The pharmacy reimbursed the patient for the cost of this medical examination with the GP.

Participant No.	Comment	Suggestions for improvement
1	Found planner very good. Very happy with gym. Found being on a programme helped keep me on track. Delighted to be able to fit into smaller size of clothes. Was disgusted by the weight in the sugar bags	
3	Programme was brilliant. Loved gym. Good to have contact every week.	No changes
5	Had difficulties because lived a long distance from the pharmacy. Good that the pharmacy was open at different times, as this helped with accessibility. Prefer programmes like weight watchers because the pressure of other people watching motivates me.	Have dietician's talk a little earlier
6	Programme very good. Good opportunity. Pharmacy is good setting.	
7	Found gym very good. Weekly planning didn't work. Too busy to follow it.	
8	Found planners very good	
9	Programme was excellent. Liked food pyramid. Loved gym – going to join. Weight watchers didn't suit... this did because of one-to-one approach. Pharmacy setting was good because of caring, educated people	
12	Cut out a lot of sweet things	
13	Programme was good. Time consuming, but made me think about what I'm eating. Pharmacy setting was good. Stopped eating in canteen and made my own lunch. Lovely people in the gym. Happy to have dropped clothes size.	Nothing
14	Enjoyed programme. Liked approach. Very different to other programmes. Didn't feel pressured.	
15	Programme was great. Realised where I was going wrong with eating. Writing down helped. Pharmacy was good because it was easy to come to.	
16	Programme was great. Wasn't like a diet because not restrictive. Good to have it in a pharmacy and support was great. Delighted to have achieved over 5% loss. Liked booklets. Didn't like diet sheets	No improvements.
18	Programme excellent, but had a lot going on personally. Pharmacy is very useful, less threatening than other programmes. Gym was brilliant, but too far away.	No changes
19	Fed up of writing down what I eat.	
20	Programme is very encouraging. Really liked food and exercise diaries – made me responsible for food. Got comments from people that I lost weight, which I liked. Now walk children to school (30min per day). Have started making their lunch and stopped giving them chocolate bar every day.	

Table 6-11 Participant comments during final review



The pharmacy team reported that they found the programme easy to facilitate. Patient folders made it easy to track patient progress and record sheets were quick and easy to complete. The use of a diary system for making appointments helped to manage workload. One of the biggest challenges reported in consultations was managing participant expectations in goal setting. Most participants were eager to set large initial targets and indicated that the initial target of 5% reduction in weight was too little. Many of the initial plans made by participants included daily visits to the gym and drastic reductions in food intake. A process of discussion and supportive challenge was required to ensure that goals and plans were realistic. Pharmacists reported that they enjoyed facilitating the programme, particularly when participants were successful in losing weight. Measurements of weight and waist circumference were easily taken during visits. Measurements of hip to waist ratio were less convenient to take as they necessitated the participants lowering their garments to facilitate the measurement. Some difficulties were encountered in using the designated consultation area for visits, as this area was also used for supervised methadone dispensing. As a result, there were some occasions when methadone dispensing was supervised in the dispensary.

The only concern expressed by pharmacists was that they did not have enough time to facilitate patient consultations. When patients made appointments for their pharmacy visits, these could be arranged for times when there was double cover in the dispensary. However, if appointments were not made, pharmacists often did not have time to meet patients as they could not leave the dispensary unattended. Many of the consultations were facilitated by the pre-registration pharmacist who was not restricted by a legal requirement to be present in the pharmacy. It was suggested that twenty patients was too many to facilitate in a pharmacy at one time without additional staffing support.

#### **6.4.6 Costs**

The costs associated with administering the programme in the pharmacy are outlined in Table 6-12. These excluded the costs of developing the materials, which involved time input from the researcher, dieticians and those who proof-read.

The greatest implication for cost in the pharmacy was pharmacist time. The time commitment combined 30 minute per patient for induction, 65.6 hours of total patient consultation time as well as time to attend the group session and the initial training time. The time estimates provided did not allow time for organisation of the programme within

the pharmacy, phone-calls, administration or contacting GPs. The pay-rate for pharmacists was estimated at €35 per hour, in line with recent guidelines on pharmacist salaries [355]. Although the pre-registration salary would be considerably less (approximately €12 per hour) this figure was not used in calculating costs, as it would have resulted in an unrealistically low estimate.

Three month gym membership was offered free of charge by a local gym. However, in future programmes it is unlikely that such an arrangement could be organised, and other, less expensive options could be considered.

<b>Expenditure</b>	<b>Euro (€)</b>
Folders and Printing	450
Postage and Phone calls	90
Pharmacist time (Training, Induction, facilitating visits, group sessions)	3096
Group session (refreshments)	100
Total cost	3836
<b>Cost per patient</b>	<b>187</b>
<b>Other costs</b>	
<b>(Free during pilot, but would need to be included in future programmes)</b>	
Developing materials	Unknown
Dietician support	Unknown
Payment for GP fees for visit	60
Gym membership (3 month membership for 20 people)	2750
<b>Total cost per patient (including gym membership but excluding material development and dietician support)</b>	<b>327</b>

Table 6-12 Summary of costs associated with pilot programme

## 6.5 Discussion

A significant decrease was achieved in mean BMI, weight loss and waist circumference over twelve weeks and the programme succeeded in addressing a number of the recommendations of the National Task Force on Obesity [185]; that individuals should be facilitated in choosing to manage their health and weight effectively by identifying their needs and possible risks through partnership with their healthcare provider (Recommendation 4.15); that individual capacities to manage health and well being be strengthened through knowledge of height, weight, waist circumference and BMI (Recommendation 4.22,); and that individuals be provided with the provision of opportunistic height/weight measurements in the community setting (Recommendation 4.23). Therefore this study demonstrated a potential role for pharmacists in tackling the



issue of weight control. Process measures provided information on the resources required to facilitate such a programme in community pharmacy.

### **6.5.1 Outcomes**

The Irish Nutrition and Dietetic Institute (INDI) advise that the aim of treatment of obesity is to prevent further weight gain, encourage healthier eating patterns and promote weight loss [197]. The National Taskforce on Obesity recommended that maintenance of current weight may initially be more realistic than weight loss. In this study weight gain was prevented in all but one participant and the average weight loss achieved was statistically significant. Therefore the study achieved the aims set out by the INDI and the National Taskforce. The weight loss was similar to that achieved by Malone et al. (using orlistat) [334] and slightly less than that observed by Ahrens et al. where weight losses of 4.9kg and 4.3kg were achieved using meal replacement and reduced calorie programmes respectively over 3 months [335]. It was also slightly less than that achieved in the Danish study, where an average weight loss of 5.6 and 6.2kg was observed amongst women (n=259) and men respectively (n=10) over 12 weeks [37]. The results are also comparable to those of studies which have been carried out elsewhere since this pilot was conducted [356-359]. (See Section 6.5.4)

In addition to achieving weight loss and reduced waist circumference, participant comments also suggested that the programme resulted in positive behaviour changes and caused participants to change aspects of their lifestyle. The effect of weight loss on quality of life has been demonstrated by other studies [360-364] but was not formally assessed in this programme. The incorporation of a measure such as Impact of Weight on Quality of Life (IWQOL) or Impact of Weight on Quality of Life – Lite (IWQOL-Lite) could be included in future studies. The IWQOL questionnaire is a 74-item self-report, condition-specific instrument that assesses the effect of weight on quality of life in eight key areas, and may be used as a treatment outcome measure and/or an evaluation tool for healthcare policy makers and third-party payers [365]. However, this instrument has been reported to be cumbersome to use as an outcome measure, due to its length, and IWQOL-Lite was developed as a shorter version of this instrument (31 items) [366]. The use of this shorter instrument could be considered.

Some of the participants in this study described how the changes in their habits had resulted in changes in the habits of their families. This supported findings from a study by

White et al. [367] where it was found that dietary intervention programmes attended by one spouse exerted a beneficial effect on the other spouse. This suggests that such programmes can have far-reaching benefits which extend beyond the obvious weight loss experienced by participants. It would be impossible to quantify these benefits in future studies, but qualitative comments from participants would be useful to indicate if such benefits existed.

### **6.5.2 Features of the Programme**

These positive outcomes were achieved by using of a multi-faceted approach within the weight control programme. Diet and exercise changes in addition to behaviour modification strategies were used to develop individualised action plans for participants to attain realistic goals. This has generally been accepted as being a more positive way of achieving weight loss than interventions which concentrate on dietary or activity modifications alone [368-370]. In the focus groups described in Chapter 3, pharmacists indicated that they found it difficult to discuss issues relating to behaviour change with customers. However, because the consultations in this study were built around the workbooks, pharmacists reported that they felt comfortable addressing issues such as goal setting, stimulus control, reinforcement, self-monitoring, cognitive restructuring and problem solving.

The Transtheoretical Model provided a framework to ensure that interventions were appropriate to each patient's "stage of change". Whilst the Transtheoretical Model has been recommended for use as a framework for changing behaviours with relation to weight control [195, 294, 371, 372] there has been no formal assessment of its use in this regard in the pharmacy setting. However, it has been successfully used in the development of effective pharmacy based smoking cessation programmes [17, 22, 373-375] and has been shown to be of use in more general health promotion topics such as exercise and diet [258]. Sinclair et al. found that training in the model made a difference to the way that pharmacy staff counselled customers and resulted in improved smoking cessation rates [16]. This training was also shown to have a long-term benefit on knowledge and attitudes of pharmacy staff, with benefits being detected three years after training [39]. This feasibility study indicated that the model could be successfully used as part of a weight control programme. Although the Transtheoretical model has been criticised for being overly simplistic [376] it is generally recognised as a useful tool in understanding behaviour change and its use in pharmacy warrants further investigation [258].



In considering the participants' comments, it is clear that different parts of the programme appealed to different people. For example the participant who lost the most weight in the trial indicated that a strong motivator for her had been the representation of her goal weight in sugar bags. It is not possible to compare these comments with other weight control studies, as patient comments are rarely included in study reports. However, comments from this study do indicate the importance of incorporating a range of activities into a programme. There is general acceptance that individuals can have preferred styles of learning and many theories, models and measures have been developed in this regard [377]. One such model suggests that individuals may have preferences for learning through visual, auditory or kinaesthetic (VAK) stimuli [349-351, 378, 379]. The application of this model to the educational setting has been explored where it has been shown that most people will learn effectively as long as learning involves a blend of visual, auditory and kinaesthetic activities [380-382]. Although the programme in this study was not designed as a training intervention, there were educational and learning aspects involved for participants. In developing the programme, materials were designed to engage individuals with auditory, kinaesthetic or visual preferences. Comments from pharmacists and participants indicated that this worked well.

Development of realistic goals and action plans were important parts of the programme [297]. People who are overweight often expect to lose more weight than can be realistically achieved. Foster et al. [296] described a study of obese women who were beginning a weight loss programme. Participants indicated that they wanted to lose an average of 38% of their body weight, but would be happy with a loss of 31%, satisfied with a loss of 25% and disappointed with a loss of 17% of their initial weight. After 48 weeks of diet and exercise therapy, these subjects lost an average of 16% of their initial weight. This highlighted the importance of helping patients to accept more modest weight loss outcomes. Unrealistic weight goals can lead to abandonment of programmes [383]. The popular image of weight control suggests that a person "goes on a diet", loses weight and then resumes normal eating. However the Irish Nutrition and Dietetic Institute asserts that the only realistic perspective is one in which the individual recognises that eating and activity patterns will have to change permanently and that weight control is a long term, not a short term goal [197]. In this feasibility study, through a process of discussion and negotiation, pharmacists helped to manage patient expectations. Goals were not just focussed on weight loss but also on behaviour change. Weight related goals were realistic and within acceptable limits for healthy weight loss. With regard to setting action plans,



Knauper et al. [384] found that overall, adherence to self-set weight-loss strategies was markedly low. In a prospective study of 132 dieting females who had set their own action plan for weight loss, an average weight loss of 1.01kg was achieved over an interval of eight weeks with 24.8% of participants gaining weight and 15.5% remaining stable. In this study, whilst patients were encouraged to develop their own action plan, pharmacists ensured that these plans were realistic by reviewing progress regularly and by helping participants to consider the issues that might prevent them from sticking to their plans, resulting in more positive outcomes.

A further positive aspect of this programme was that it represented a cost effective way of facilitating inter-professional collaboration. Participants were supported by the pharmacy team, dieticians and exercise experts as well as benefiting from peer support from group sessions. The advantage of a multidisciplinary approach was advocated by the National Task Force for Obesity [185], but can be difficult to successfully implement in the primary care setting. Turner et al. reported difficulties in developing a collaborative approach to weight loss [370]. In their study, an inter-professional team was developed which included two physicians, two psychologists, a nurse practitioner, an exercise physiologist and a patient educator. After twelve weeks, no significant weight loss was achieved. The large number of personnel used in developing and implementing the programme proved to be highly costly and resulted in the need to discontinue the collaborative efforts. John et al. described a workplace-based cardiovascular risk management programme which was managed by community pharmacists, but found that the programme was not effective in achieving weight loss [385]. Malone et al. described a more successful multidisciplinary approach to weight management in the outpatient hospital setting using a physician specialising in nutrition, a pharmacist and a behavioural psychologist [386]. Average weight loss of 3.6 kg and 5 kg were achieved at ten and twenty weeks respectively, although over a third of participants dropped out. However, with an increasing emphasis on redirecting government expenditure to primary care, community based settings, such as community pharmacies would be more desirable than an out-patient setting.

An unforeseen benefit of using a multi-disciplinary approach was an increased level of inter-professional communication. The dietician indicated that as a result of her participation in the programme she was more aware of the potential for pharmacists to be involved with weight control programmes. This prompted her to develop a guidance pack on weight control for other health care professionals. Similarly there was increased



dialogue between the pharmacy team and the fitness advisors in the gym. In the majority of cases, interaction with GPs was positive.

The multifaceted, patient-centred approach which was adopted in this study contrasted to the approach normally used by pharmacists in the area of weight control. A review of pharmacy based weight management programmes in Australia indicated that the majority of programmes delivered in community pharmacies were product related, typically involving strategies to reduce energy intake via limiting fat or overall calorie or carbohydrate intake with limited reference to lifestyle factors [269]. This would appear to also be the case in Ireland, where there has been particular emphasis placed on programmes which are associated with Very Low Calorie Diets (VLCDs). The National Institutes of Health, in advising against the use of VLCDS, reiterated the fact that successful behaviour therapy is the key to long-term reduction of weight [368]. Programmes such as the one described in this study represent a more balanced approach to the issue of weight control.

### **6.5.3 Feasibility of Programme**

Overall, this study indicated that it was feasible to deliver such a weight loss programme in the community pharmacy setting. Recruitment of participants to the programme did not pose any problems, but it should be noted that applicants to the programme were predominantly female. Estimates of weight status in Ireland suggest that a greater proportion of men than women are overweight [79] and it is therefore unlikely that this gender imbalance was a reflection of societal demographics. The trend may have been due to higher proportions of females using pharmacy services [161] but it is more likely to be due to the fact that there is a greater tendency for females to apply for such weight control programmes. Grover et al. studied the gender differences in relation to weight and suggested that men tended to underestimate their body size and weight status, despite being objectively overweight, which may mean that they did not see any personal relevance in advertised weight control programmes [387]. Similar gender trends were experienced in other pharmacy based weight-control studies. In Denmark, 10 of the 269 patients who took part in a weight-control programme were male [37]. Malone and Ahrens reported a slightly higher percentage of males participants in their studies (4 males in a total of 28 participants and 12 males in a total of 83 participants respectively), but males still represented a small minority of total participants [334, 335]. An alternative method of recruitment would be required if men were to be attracted to such a programme. A study

which explored motivation to lose weight amongst men suggested that the workplace might be a more appropriate arena for such recruitment [388].

The retention rate seen in this study (79%) was similar to that in other studies. The Danish study reported an retention rate of 71% over twelve weeks [37], and in an Australian review, Rieck et al. [269] indicated that on average, around one quarter of participants drop out of weight control programmes in the active treatment phase.

In this study participant comments indicated that the pharmacy was a convenient location for such a programme with many attending for consultations in the evening after work. The dietician reinforced the benefit of this aspect of the programme. The long hours of access make pharmacy an attractive location for such interventions compared to other healthcare settings within the community. As demonstrated in Table 6-11, a number of participants commented favourably on the support that they received in the pharmacy, with some stating that they had found the pharmacists to be very caring.

Although space has been raised as an issue in some studies as a barrier to service delivery, it did not pose any problems in this study. The use of the consultation area was sufficient for the facilitation of patient consultations, although it did result in some minor disruption to other services. The pharmacy has since installed a second, closed, consultation room, to facilitate more programmes of this type without disruption to their existing methadone service. With the introduction of new legislation and guidelines, all pharmacies will soon have designated consultation areas within their pharmacies, [250, 389]. Therefore space should not act as a barrier to the implementation of this type of service in the future. Some pharmacies may not have access to a room for facilitating group session and alternatives would need to be considered. For example another venue within the community could be used or meetings could be held in the pharmacy outside of opening hours.

This study showed that outcome measures such as weight, BMI and waist circumference were easily facilitated on a regular basis in the community pharmacy setting. To ensure accuracy of these measurements, calibration of the weighing scales was required and clear guidelines were needed on the point of measurement for waist circumference. The fact that these measures could be taken at every visit helped minimise the impact of lost data due to drop-outs. Waist-to-hip ratio was not so easy to measure. However evidence suggests that this measure confers no additional benefit as an outcome measure for weight



loss [390, 391] and therefore this would not be recommended for use as an outcome measure in future studies.

Blood pressure and body fat percentage measurements could not be taken throughout this study as the storage of the relevant monitors in the consultation area on an ongoing basis was not feasible, due to the open nature of the area. However, the pharmacy which ran the feasibility study has since developed a second consultation area which is now permanently equipped with a blood pressure monitor. Since this study, guidelines have been produced by the Irish Heart Foundation for the measurement of blood pressure outside the clinical setting [392] and these should be followed in any future studies.

All measurements were taken using validated methods and monitors, with the exception of body fat percentage. The validity and reliability of a range of body fat analysers has been examined and it has been advised that percentage body fat readings from such monitors should be interpreted with caution [393]. Consequently this measure was less robust than the other measures, and it's inclusion in future studies should be reviewed.

A notable finding from the study was that most of the consultations were facilitated by one individual in the pharmacy team, the pre-registration pharmacist. Whilst this individual was involved in much of the organisation of the programme and initial contact with patients it was anticipated that after the initial stages of the programme, other members of the pharmacy team would facilitate consultations. However subsequent to the initial contact, most patients asked for the pre-registration pharmacist by name when they came to the pharmacy and seemed to value the continuity of support from one individual. Sinclair et al. reported a similar finding, with customers highlighting the benefits of fostering a long-term supportive rapport during a smoking cessation programme [16]. Therefore the availability of a continuous source of support seems to be an important factor for patients.

Pharmacists in the study reported that they often did not have time to spend with participants as no additional pharmacy resource was allocated for the programme. This issue of time has been raised repeatedly in other studies [17, 394]. Rieck et al. described how it did not seem possible for a single pharmacist to cover both enhanced pharmacy services and to be available for precise dispensing with response times set by typical client expectations [269]. It was commented that this barrier was intrinsically tied to the finances of running a community pharmacy. In a typical community pharmacy dispensing and sales

of medicines provide revenue and therefore simple economics drive the fact that it will take priority. If pharmacists are to act as the primary point of contact for additional programmes, time will need to be released for patient interactions, particularly in the early stages of the intervention. The programme described in this study required approximately 15 minutes per week per patient of pharmacist's time, although time requirements were higher at the earlier stages of the programme. The number of participants to be included in such a programme should be decided after consideration of pharmacist availability and workload. The pharmacy staff in this study suggested that a group size of 10 participants would be more manageable for future programmes if no additional staffing resource was allocated. This is similar to the recommendation made by Medway PCT [357].

The business profile of the pharmacy should also be considered when implementing services. As shown by Fisher et al. [282] dispensing rates can vary throughout the day and week. The feasibility study also demonstrated that monthly variation in workload needed to be considered. In Ireland the large number and variety of payment schemes (including Drug Payment, Drug Refund, Long Term Illness, General Medical Services, Methadone, Psychiatric, Hardship, High-Tech, Dental and Hospital Emergency schemes) results in a heavy administrative burden at the beginning and end of each month. This aspect is seldom considered in the implementation of programmes in community pharmacies, yet is one which could impact on the success of implementation. This could be addressed through the provision of additional staffing, the re-deployment of non-pharmacist staff (either in service implementation or in administrative workload) or the use of an appointment system which would take account of existing workload. These options could be explored in future studies. Although pre-registration pharmacists represent a useful resource, they often leave a pharmacy once they have finished their pre-registration training, thus resulting in discontinuation of support for patients.

The issue of remuneration was not addressed in this programme. Facilitation of the service resulted in a cost to the pharmacy in the form of staff time, printing of materials and folders, servicing of weighing machines, phone call charges and refreshments at group sessions. The involvement of the dietician was covered by the Health Board and gym membership was provided by the gym. The cost of course development was covered by Boots the Chemist. The pharmacy received no remuneration for participation in this study, which was unrealistic given the time commitment required. Other studies have reported that programmes were funded by patients. In Denmark, patients paid approximately €70 to



the pharmacy to participate in the weight management programme. The scheme is still in operation to date, and pharmacies now charge approximately €100 per participant. The Danish pharmacists, in turn, paid for participating in initial training course and for the associated manual, which included annual updates. The cost of the programme development was covered by Pharmakon, with support from the Danish Association of Pharmacies [395]. In America, a study investigating the effect of a meal replacement programme was funded by the manufacturers of the meal replacement product, but normally the cost would be borne by the customer [335].

In the absence of any other funding opportunities the possibility of patients paying for weight control programmes needs to be explored in Ireland. Although gym sponsorship was provided for this programme, it is unlikely that this could be secured for a larger scale project. Instead less costly methods of incorporating exercise into a programme should be considered. For example, the possibility of accessing exercise advisors within the HSE could be explored, or greater use could be made of community exercise groups.

The need for further study in the area of pharmacy led weight control services has been consistently repeated [12, 127, 269, 332, 396-400], and this study should provide some insights into the issues that need to be considered when developing such services.

#### **6.5.4 Review of Subsequent Studies**

Since this study, other studies of weight control have been conducted in community pharmacy. The UK is the only area where there is evidence of publicly funded weight control services, with the funding mainly coming from the Primary Care Trusts (PCT).

In Wandsworth PCT, a community pharmacy based weight management service was developed as part of a Patient Group Direction (PGD) for the supply of Orlistat [401, 402]. The service involved counselling and advice on healthy eating, combined with treatment using orlistat, where appropriate.

Ten community pharmacists were recruited by Ealing PCT to participate in a weight management service [356]. Of the 96 participants in the service, 41% completed the full 6 month (10 sessions) duration and achieved an average of 2.4 kg reduction in weight and 3.5 cm reduction in waist circumference. Although the project worked well in the majority of pharmacies, it was noted that drop-out was high from certain pharmacies and it was

observed that where pharmacists and their staff were motivated, patients tended to have better outcomes.

In Eastern and Coastal Kent PCT, a weight management scheme was developed where healthcare staff members from community pharmacies were trained on healthy eating, increasing activity and motivational interview techniques to support behaviour change [403]. During the first 6 months of the project 80 patients had enrolled in the scheme. Interim results indicated that 31 patients had reached week 12 of the programme. Overall weight loss was achieved in 28 of these patients with a mean weight loss of 3.4kg.

The Medway Primary Care Trust (PCT) developed a scheme which focused on providing diet and healthy lifestyle advice via group meetings, one-to-one sessions and measurement taking [357]. The programme was developed through consultation and discussion with various parties including the pharmaceutical industry, other PCTs that had developed weight management schemes, Medway PCT community pharmacy steering group and a consultancy company called "Healthstyles" that specialises in running training for the management of weight management programmes. The programme was piloted in two community pharmacies, which provided 12 group sessions and individual patient measurement in consultations over a 24 week period. In addition to the pharmacy-based intervention, exercise passes were provided which could be exchanged at two of the local sports and leisure facilities in the Medway area for access to free exercise classes. A total of 60 patients enrolled in the pilot scheme and 42 dropped out before the 24 week period. The average weight loss was 1.82 kg per patient. This is considerably less than the weight loss achieved in this feasibility study, but is not directly comparable due to the longer follow up period. The service was offered free to patients, and financed by the Medway PCT, with pharmacies receiving £200 per patient during the scheme. Given the costs reported in this feasibility study, this level of reimbursement seems reasonable.

In Coventry PCT, pharmacists were trained to deliver a weight loss service which involved setting targets for diet plans and exercise [358, 359]. One hundred and sixty patients were recruited in ten pharmacies. Thirty four participants completed the service after twelve months, achieving a mean weight reduction of 3.7kg and mean reduction in waist circumference of 6.69cm.



There are further reports of pharmacy based weight programmes in Southampton Welwyn Hatfield, Soton, Langbaugh, West Hull and Hastings and Rother PCTs, but results from these have not been published [404, 405].

Other international studies, which bear fewer similarities to the feasibility study, have also been carried out recently. In the US, a 3-month, open-label, naturalistic study was carried out in an over-the-counter setting in 18 pharmacies study to assess the use orlistat 60mg without physician supervision [406]. Consumers were allowed to purchase orlistat packages containing a bottle of orlistat 60mg plus educational materials, which provided lifestyle information and tools to encourage successful weight loss. Approximately 80% of the subjects who used the educational materials reported that they found them useful or very useful and indicated that they were satisfied or very satisfied with the weight loss achieved. There was a measured and self-reported relative median weight loss of approximately 5% after more than or equal to 60 days of using orlistat. However, the results are not comparable with the feasibility study as intervention from the pharmacists was not considered and the outcome measure used (self-reported weight loss) was not robust.

In Switzerland, Botomino et al. investigated the effects of pharmacy based counselling on changes in lifestyle and body weight in 1,370 subjects [407]. After three months, 11% of subjects had lost  $\geq 5\%$  of their initial body weight and which increased to 18.5% after one year. The study was compromised by the fact that the data was obtained by questionnaires, meaning that weight loss was not validated. There was a high level of drop out during the study with only 1,370 of the original sample of 3,800 subjects included in the analysis. Very little information on the nature of the interventions was provided, and no efforts appear to have been made to ensure consistency of approach between pharmacies. This makes it difficult to compare these results to those obtained in the current study.

In America, Lloyd et al. described the implementation and evaluation of a weight management pharmaceutical care service in a stand alone pharmaceutical care centre on a college campus [408]. A pack of patient education materials were developed and reviewed by a registered dietician. A 1.5 hour initial patient assessment was conducted, where a full medical and social history was taken and baseline measurements were taken. After data collection the pharmacist interpreted the body composition values for the patient, evaluated readiness to change, established a target goal weight range, estimated daily caloric

requirements for weight maintenance, established a calorie and fat gram budget for weight loss and set exercise goals. A plan for addressing other pharmaceutical care needs and monitoring other disease states and drugs was developed during the initial appointment, where appropriate. Fifteen minute follow-up appointments were typically scheduled every 2 weeks. A mean net weight loss of 3.6kg per patient was achieved during the programme. There was no set duration for the programme, but mean duration was 26 weeks. The service described was initially funded by the Auburn University Harrison School of Pharmacy and provided free to University employees who were covered under the Auburn University Insurance Plan. However since 2006 all participants are charged a fee.

Although the results from each of these studies are not directly comparable, they support the finding that pharmacy based weight-control interventions can result in significant reductions in weight and waist circumference.

### **6.5.5 Limitations**

This study worked well as a feasibility study, but there are some limitations which should be considered when interpreting the results.

Generalisability of results in this study is limited by many factors, including the small sample size, the fact that it was only delivered in one pharmacy, the fact that the service was provided free of charge and the fact that participants were self-selecting [269] and mainly female.

Lack of exclusion criteria may have resulted in confounding of results. For example studies have shown that medicine usage can impact on the success of weight control programmes [409]. Over half of participants were taking prescription medicines, a number of which are known to cause weight gain, and five patients were taking weight reducing medication. It is not possible to know to what extent these may have impacted on the results. Lloyd et al. [408] incorporated a screening of medications at the start of their study and in Coventry a Medicine Use Review (MUR) was provided to patients, if required, before participation in the weight loss programme [410]. Given the impact that medications can have on weight loss, a medicine review should be considered in future weight control programmes. Additional pharmacist training would be required for this. It may also be desirable to eliminate the confounding effect of weight reducing medications



by including this as an exclusion factor in future research studies. However, in practice, it would be difficult to justify exclusion of such patients from weight control programmes.

A case could also be made for the exclusion of patients with a BMI exceeding  $40\text{kgm}^{-2}$ . The National Taskforce on Obesity algorithm [185] and other literature [411] suggest that bariatric surgery is a more appropriate treatment option for these patients. Two such patients were included in this study, with BMIs of 44 and  $53\text{kgm}^{-2}$ . The patient with the BMI of  $53\text{kgm}^{-2}$  was the only patient to gain weight during the study. Patients with such a high BMI are likely to require more intensive interventions, and a referral pathway to other healthcare professionals is likely to be a more effective strategy. Similar recommendations were made by Medway PCT following their weight control pilot scheme, where it was decided that any similar schemes in the future should set an upper BMI limit as an exclusion criteria for participants, as the greatest success in weight loss seemed to occur in those with a BMI below 35 [357].

The study was also limited by the fact that it was conducted over a short time frame. A longer follow up period, with a larger group, would be desirable to assess the long term implications of such a programme [369, 412]. A more structured assessment of patient and pharmacist feedback on the material is also required.

Notwithstanding these limitations, this study achieved its aim as a feasibility study. It provided a framework on which other services could be developed and has identified issues that would need to be considered in the development of future health promotion programmes within community pharmacy, particularly in the area of weight control.

## **6.6 Conclusions**

The intervention described in this study was successful in achieving significant average weight loss amongst participants. The positive results indicated that community pharmacy could be a viable setting for the facilitation of weight control programmes. The multi-faceted, inter-professional approach which was used in this study provided an alternative to the product-driven approach to weight loss which is normally employed within pharmacies. The programme attracted positive comments from both patients and pharmacy staff, indicating its acceptability with both populations. Although issues such as remuneration and releasing pharmacist time need to be addressed, this study should prove useful in informing the development of future weight-control services within pharmacy.





## **7 Using Semi-structured Interviews to Explore Stakeholder Views of Health Promotion in Community Pharmacy**

### **7.1 Introduction**

In the focus group study (Chapter 4) pharmacists identified a number of stakeholder groups who influenced the development of the profession of pharmacy in the area of health promotion. These included patients, leaders of the pharmacy profession, other healthcare professionals and policy makers. Pharmacists claimed that some of these groups, such as patients and policy makers, did not understand the role of the pharmacist or appreciate how it could be developed. This raised the question as to whether such claims were valid.

As commented by Anderson et al. [10], little research has been conducted on the views of external stakeholders on the contribution of pharmacists to health improvement. In 1995, a telephone survey of seventy-seven pharmaceutical advisors in English health authorities was conducted to ascertain the level of involvement by community pharmacists in public health campaigns and to identify perceived barriers to such activities [45]. It was found that 57% of the health authorities reported pharmacist involvement in health promotion activities. The barriers perceived by the pharmaceutical advisors were lack of funding and insufficient resources for local development, support and facilitation. It was felt that the relationship between the health authority, the local pharmaceutical committee and the health promotion unit influenced pharmacist involvement in health promotion. Over half of the respondents in this study indicated that they had been influenced by the Barnet High Street Health Scheme [40].

In 1999 Ursell et al. [413] explored the attitudes amongst community pharmacists and those responsible for pharmaceutical policy at health authority level in the UK. At that time half of the pharmacists perceived that the profession played a “very important” role in public health provision, an attitude not wholly supported by pharmaceutical policy makers (11%). There appeared to be some disparity between the two groups regarding the principal barriers to pharmacist involvement in public health provision. Pharmacists felt pressured by lack of time and workload whereas policy makers identified the issues of finance and training as being more significant barriers. In addition 79% of pharmacists felt that pharmacist inclusion in primary care group function was needed, compared to 27% of policy makers.

In another UK study, Celino et al. [414] conducted interviews with ten individuals from key stakeholder groups, including general practice medicine, nursing, NHS primary care management and commissioning, Department of Health and lay/service users. Through a series of structured interviews which were conducted by telephone the participants provided insights into the potential barriers to further integration of community pharmacy into primary care services for people with long-term conditions. Key barriers which were identified in these interviews were that many GPs remained unconvinced about the potential benefits of pharmacy involvement, there was a lack of clarity among patients about what community pharmacy could provide, there was low visibility of marketing and a perceived lack of local community pharmacy product champions and there was a need for a more coherent and united approach from different pharmacy organisations.

Bush et al. explored the attitudes of directors of public health and chief pharmacists in UK primary care organisations (PCOs) [415-418]. Initial exploratory interviews were conducted with a purposive sample of six pharmacy and public health “key players” and self completion questionnaires were subsequently sent to the directors of public health and chief pharmacists at 315 primary care organisations in the UK. Barriers which were identified included lack of available funding, time constraints, pharmacists’ inexperience of the commissioning process, unsuitable premises and the fact that pharmacists were unwilling to leave the “comfort zone” of the dispensary. The research also demonstrated that whilst policy makers within PCOs believed that pharmacy could contribute to improving health across a wide spectrum of disease states, there were differences of opinions between public health directorates and pharmacy departments as to how useful pharmacy could be. The authors concluded that if community pharmacy was to fulfil its promise within public health in the short to medium term, it would make sense for pharmacists to concentrate on developing their contribution in areas where health planners believe they can be of most use.

As part of a review of health promotion and screening activities by community pharmacists in 2005, Howarth et al. conducted a survey of “peak representative bodies” associated with National Health Priority Areas in Australia [242]. The organisations contacted were asked how they considered the role of pharmacy in general as well as in the area of health promotion, and were asked to identify potential roles for pharmacy that were not currently being undertaken. Response to the survey was reported to be poor despite the use of two reminders for non responders. The National Stroke Foundation considered pharmacists to



be outlets for information and education for public health campaigns. This organisation also saw a role for pharmacists in the area of screening for hypertension and in developing best evidence guidelines for medication use in stroke prevention. The Cancer Council focussed on the role of pharmacists in smoking cessation while a body dealing with the topic of depression saw pharmacies as the front line access point for people in querying their healthcare needs and accessing medications and treatments. They felt that pharmacies had “substantial untapped potential” to coordinate provision of quality information on depression, anxiety and related disorders.

In Ireland, there has been relatively little consideration of stakeholder views towards community pharmacists. The main stakeholder group which has been considered are customers [162, 163, 172], although this has been exclusively done through survey methodologies. One study used a survey to consider GP attitudes [419]. As part of this research it was decided to explore the way in which pharmacy based health promotion was perceived policy makers and patient representatives in Ireland. This was achieved through a series of semi-structured interviews with a mix of patient representatives and policy makers.

## **7.2 Aims and Objectives**

This study explored the views of patient representatives and policy makers regarding the role of community pharmacists in health promotion and how their role might be developed in the future.

The objectives were to elicit stakeholder views on the following issues:

- How the role of the community pharmacist is perceived currently
- How the role of the community pharmacist might be developed
- The factors which would facilitate or prevent development of the role of the community pharmacists
- How pharmacists could be involved in weight control.

## **7.3 Methods**

Ethics approval for this study was obtained from the Trinity College Dublin Health Sciences Ethics Approval Committee.

### **7.3.1 Participant Selection**

A purposive sampling technique was used to select two patient representatives and three policy makers. The patient representatives were the Chief Executive Officers of two national patient representative organisations: the Irish Patient Association and the Irish Diabetes Federation of Ireland. The policy makers included the Minister for Health and Children, a member of the Oireachtas Committee for Health and Children and an Assistant Principal Officer in the Health Promotion Policy Unit in the Department of Health and Children, each of whom were involved, in or had an influence on, policy making processes.

### **7.3.2 Participant Recruitment**

Each participant was initially contacted directly by telephone, with the exception of one policy maker who was encountered in person. At this initial contact each participant was provided with some information on the study and the reasons for their selection were explained. Participants were asked if they would be happy to receive further information on the study by email and all agreed. An information letter and a copy of the consent form (Appendices 7.1 and 7.2) were then emailed to each participant and all were asked to indicate if they would be willing to participate in the study.

### **7.3.3 Development of Question Plan**

A question plan was devised to address the study objectives. The main questions remained the same in all interviews, but some adaptation was required to tailor the conversation to the stakeholders involved. The interviews were semi-structured and therefore the main question plan was supplemented with appropriate probing questions to explore participant responses. A small number of quotes from the pharmacist focus groups (Chapter 4) which were deemed relevant to the stakeholders were also presented during the interviews and participants were invited to respond to, or comment on, these. This provided a means of testing the validity of pharmacist perceptions as raised in the focus group discussions. Some participants requested that the question plan be forwarded to them in advance of the interview. In these cases, the general question plan, as outlined in Table 7-1, was provided.

### **7.3.4 Conducting the Interviews**

Interviews were conducted at a time and place convenient to the participants and were conducted between February and October 2008. Only one participant chose to conduct the interview in the School of Pharmacy and Pharmaceutical Sciences with the others



requesting that the interviewer attended their office. The interviews were structured to last approximately one hour. Two digital voice recorders were used to capture the interviews (Sony ICD-P320 and Olympus WS-331M MP3 Digital).

Interviews were conducted by the primary researcher, who had been trained in non-directive interviewing as part of her work.

**Please note: Interviews will be semi structured. Therefore, although the substantive material to be covered is encompassed in the questions below, additional questions will be asked to specifically probe the information which is provided by the contributor. These can not be anticipated in advance of the interview.**

- How do you perceive the role of the community pharmacist as it currently stands?
- In what ways, if any, do you think the role of the pharmacist could be developed?
- What do you understand by the term health promotion?
- What are your views on community pharmacists becoming more involved in the area of health promotion?
- How could pharmacists increase their role in health promotion?
- What aspects of the community pharmacist's role, if any, enhance their ability to be involved in health promotion?
- What aspects of the community pharmacist's role, if any, prevent them from being involved in health promotion?
- How, in your opinion, should the profession approach the issue of increasing their involvement in this area?
- Our research group are considering the role of the pharmacist in the area of weight control. Have you any views on pharmacist involvement in this area?
- If you were to sum up your opinion on community pharmacist involvement in health promotion, what would it be?

**Note: Some quotes from previous focus groups with pharmacists will also be presented to the interviewee for comment. These comments will be specific to each contributor.**

Table 7-1 General Interview Plan for Semi-structured interviews

### 7.3.5 Analysis

Transcripts were analysed using thematic content analysis. The question plan was used to create the initial categories as follows: the current role of pharmacists; definitions of health promotion; potential development of the pharmacist's role; factors which act as barriers and facilitators to the development of the pharmacist's role; ways in which pharmacists could help with weight control. Within each category, themes and sub-themes were inductively derived while coding the data. NVivo (Version 8) software was used for data management [420]. Themes were validated by a second coder and any queries discussed and addressed.

## **7.4 Results**

### **7.4.1 Recruitment**

Both patient representatives and one of the policy makers indicated that they were happy to participate. The two remaining policy makers expressed reservations that they did not know enough about pharmacy to be included in the study. It was explained to both that no expertise in the area of pharmacy was expected and that it was their perceptions as policy makers that was of interest in the study. Both subsequently agreed to participate, although they both continued to express reservations about their ability to contribute to the discussion at the start of their interviews.

The Minister was accompanied by a senior civil servant who acted as the head of Primary Care II division of the Department of Health and Children. This division has three main functions; to develop strong legal and other governance and accountability arrangements for the GMS and community drugs schemes; to update and modernise the legislative framework for the pharmacy profession through the roll out of the provisions of the Pharmacy Act 2007; and to review drugs prescribing policy as it relates to general practice [94]. It had been originally anticipated that this individual would be invited to participate in a separate interview, but this was no longer considered appropriate given their inclusion in the Minister's interview. This individual's input was minimal compared to that of the primary interviewee, and in reporting the results of this study, their comments were coded as being from the Minister.

### **7.4.2 Facilitation of the Interviews**

All interviews were conducted by the researcher, who had experience of non-directive interviewing (in exploring pharmacist's attitudes to programmes within Boots) and who had also gained interviewing experience through facilitation of the focus groups. Transcripts were reviewed by another researcher to ensure that questioning was not directive. The questions from the question plan were asked using a conversational tone, and in a sequence that facilitated a natural flow of conversation in each interview, which was not always the sequence set out in the plan. All interviewees talked freely. The policy makers generally required more prompting on responses than the patient representatives who seemed more comfortable in providing their opinions on pharmacy related issues. Occasionally considerable probing was required to ascertain the true beliefs of interviewees.



Two of the policy makers indicated that they would only have 30 minutes to participate. During these interviews it was indicated by the interviewer when the thirty minute period was over, but one of these participants (Policy maker 1) continued to speak for a further 11 minutes and the other (Policy maker 3) spoke for a further 71 minutes. One participant requested that the recorder be turned off as it was felt it was inappropriate to discuss their full thoughts during the interview, and some others, whilst they did not request the recorder to be turned off, provided additional information after the end of the interview after the recorder had been stopped. Some stated they would not have been comfortable discussing these additional issues whilst being recorded. This information was not included in the analysis, but the sentiments expressed were considered when interpreting the data. Table 7-2 provides a summary of the duration of interviews.

<b>Participant</b>	<b>Duration of interview(min) [word count]</b>	<b>Notes on additional discussion time or requests from interviewee.</b>
Patient representative 1	64 min. [10568 words]	Spoke for another 83min, with the recorders still recording. The additional 83 minutes were not transcribed, but pertinent points were included in the analysis
Patient representative 2	61min [9126 words]	Spoke for another 15 minutes with the recorders turned off.
Policy maker 1	41min [6528]	Was 30 minutes late for interview and initially indicated that only had 30 minutes to talk
Policy maker 2	59 min [11986]	Was 30 minutes late for interview
Policy maker 3	65 min [8188]	Initially indicated that only had 30 minutes to talk. Requested that the recorders be turned off at 65 minutes and spoke for another 36 minutes after recorders were turned off.

**Table 7-2 Details of interview durations**

During the interviews it was obvious that some contributors had not previously considered the issue of pharmacist involvement in health promotion and that their opinions were developed in the course of the interview through the articulation of ideas and experiences. In contrast, others had very clear views on the topic, and were confident in expressing these. Most seemed to enjoy the interview process with three of the contributors continuing to talk at length after the interview was formally finished.

### 7.4.3 Analysis

The categories of analysis as laid out in section 7.3.5 were used as the primary themes of analysis. These primary themes and emergent sub-themes are described in this section. Quotations are attributed to the policy maker group (PM) or patient representative group (PR), but are not attributed to individuals to protect the anonymity of the participants.

#### 7.4.3.1 Current Role of Pharmacist

Two main themes emerged from the discussion regarding the current role of pharmacists. One related to the pharmacist's role as a healthcare professional and the other to the pharmacist's role as a retail manager:

*I think its split between two view points. One is that it's a local shop and the other is that it is the pharmacist that I go along to and ask about my aches and pains without necessarily going to the GP. (PR)*

All stakeholders stated they saw pharmacists as healthcare professionals whose main activity was dispensing medication:

*The image of the pharmacist is one of dispensing medicine as their core activity. (PR)*

Some also saw the pharmacists as a source of advice:

*Well I think by the public pharmacists are seen as people who can give advice and they can confide in I suppose if they have difficulties around their health. (PM)*

However all stakeholders felt that this role was compromised by the fact that pharmacists were often hidden in the dispensary:

*Sometimes it strikes me that pharmacists are sometimes removed from the front counter of a pharmacy. If you go in and you have people, assistants and that, and if you want the pharmacist well, they're behind a wall, they're up there in a hatch working on medicines. So I think they are a bit removed from the front line service... they always tend to be somebody working in the back room, doing up all the prescriptions and doing up all the medicines. (PM)*

One of the patient representatives felt that this resulted in inadequate interaction with patients:

*You put your prescription in, the assistant goes behind, it's ready, come back out, "sign that form", you pay for it or whatever the case may be, "thank you very much, see you next month"... That's a typical pharmacy interaction. Now you tell me is that good enough? (PR)*



Pharmacists were seen by all stakeholders as different to other healthcare professionals by virtue of their commercial role:

*They are different in that they run a business that has lots of other things in it besides pure health, primary healthcare. They will be selling toothbrushes and whatever else they're selling, makeup... and soon as well Christmas gifts and things. So I mean, they are different in that sense. (PM)*

*Because pharmacists are generally self-employed entrepreneurs they're not in the public health system in the same way. (PR)*

Most felt that this commercial role compromised the professional role:

*I think the teddy bears and balloons can kind of distract from the clinical side of what pharmacists can do or can offer... I think it's diluting the core activity of what a pharmacist is about. (PM)*

A number of stakeholders commented that this commercial aspect of the pharmacist's role had increased in recent years with most of the stakeholders identifying increased competition in the sector due to new pharmacy openings:

*It could be that some pharmacists as a result of the cost of setting up and all the rest of it, they have to look at it really, really hard as a commercial venture. Whereas you may have somebody that's a little bit more mature, you haven't moved around, they bought the pharmacy 15 or 20 years ago, they're into the pharmacy and all that and maybe all their overheads are all paid, and ok, they keep their eye to business but it's not the number one. The people who have come in in the last five years have probably borrowed up to their hucksters and they're pressurised on the commercial side of it. (PR)*

One policy maker felt that this was a good thing, resulting in increased competition:

*A lot of competition has driven some changes in terms of hours of opening and premises and you know. (PM)*

Although hospital pharmacists were not mentioned by any of the patient representatives, each of the policy makers contrasted the role of the community pharmacist to the role of a hospital pharmacist. In general there seemed to be more appreciation for the clinical role of hospital pharmacists than community pharmacists:

*I suppose I have a sense that their [hospital pharmacists] job is more scientific. (PM)*

*Some of the hospitals in the country, [Name of hospital] comes to mind immediately, they've brought in pharmacists on staff to just look at their drugs for the patients and it had fantastic benefits. It was a really both cost effective, and also very good from a health perspective. (PM)*

One of the policy makers expressed views similar to those of the other stakeholder throughout most of the interview. However, towards the end of the interview the contributor admitted not really knowing what it is that pharmacists do:

*I think people would be a lot less clear about what the pharmacists do as opposed to what doctors do...I recognise that it's something that obviously that you have to be pretty intelligent to do it and it's obviously quite demanding and all the rest of it, but I actually don't know the content of the training....I'd say people would have a very narrow perception of it and think that they just learn about medication and about how it works in the body. You know. Now, I'm not even quite sure myself what they do. (PM)*

It was evident from the conversations that many of the stakeholders relied on their own personal experiences or the experiences of family and friends to inform their view of pharmacy. One stakeholder stated that that they had a chronic illness and that their view of pharmacy was formed from their personal experience whilst collecting prescriptions related to this illness:

*I have a chronic illness and I go to the same pharmacist every month. I have [name of illness]... they can sell me over the counter products with my [medication] and then you go home and you read the label and it says not suitable for people with [name of illness] and that happens regularly. Now I know to buy [an alternative]. I know what to buy and not what to buy only because I've taken the time to educate myself in it. But at the same time never once has the pharmacist assistant or the pharmacist said "this is not suitable maybe can you take this other alternative" and that would be my own personal experience with a chronic illness ... it's probably the same for other [illnesses]. (PR)*

#### **7.4.3.2 Future Role of Pharmacist**

In general most stakeholders felt that pharmacists should develop their role to be a source of information and advice:

*They're in such a good position to be a real source of information, a fountain of information. (PR)*

*Pharmacists have premises that you can go in and out of, there are opportunities for notice boards and public information and you know public campaigns. (PM)*



*There are subtle messages that could be given to people in relation to the medications that they're coming to get. I suppose smoking is the coughs and colds and the chest infections. The alcohol maybe the hangovers. It's just the telltale signs without being judgemental on people but you're just saying, here's some information that you might be interested in. (PM)*

One patient representative also mentioned the area of screening:

*If you look outside the diagnosed patient, look at the number of patients that would be going in with high blood pressure, high cholesterol... there's another huge cohort of people who could get screened in the pharmacy. (PR)*

Some stakeholders mentioned pharmacist prescribing as a potential future role. One patient representative was in favour of this:

*I can't see any reason why pharmacists can't prescribe within certain parameters. (PR)*

However the other patient representative disagreed with this, as did one of the policy makers:

*The PSI document talks about pharmacists prescribing, ok? Now at this moment in time we don't agree with that. (PR)*

This stakeholder elaborated on this statement by saying that at the moment pharmacists did not appear to have sufficient expertise for such a role. The "PSI document" referred to in the quote is Interim Report from the Pharmacy Ireland 2020 working group [421] which sets out the Society's vision for the development of pharmacy over the next 12 years. When probed for an opinion on this document, the stakeholder replied:

*I just think it's a lot of kind of, a lot of pillow talk. (PR)*

The policy makers generally accepted that there might be more that the pharmacist could do as part of the primary health care team, but generally did not have a clear idea about what this could be:

*I haven't in my head something defined, as to what exactly the pharmacist will do. But if we are moving to a system where 95% of our health needs are going to be met at community level, it seems to me impossible to do that if you are going to leave those who have responsibility for the dispensing and management I suppose for your medication out of the equation. (PM)*

This individual described how the setting of standards within the healthcare setting would drive a change in role for pharmacists:

*...patient safety issues... I've no doubt in time that with HIQA (Health Information and Quality Authority) and the giving of information and the setting of standards, there'll be a greater emphasis placed on monitoring patients, and that's a role I see for the pharmacists. (PM)*

This policy maker continued to say that if the pharmacy sector was going to deliver more services it was important that this did not result in duplication of services:

*We don't want duplication between what the GP does and what the pharmacist does. We don't want to pay for a service **twice**. (PM)*

This was reiterated by another policy maker:

*Something new ... would be the easiest thing to start with because you're not taking from anybody who is doing something already. It's always difficult to offer to do something that somebody else is doing. Or alternatively you could top up something that somebody else is doing. I mean, if there is a waiting list for something or other that's happening. (PM)*

#### **7.4.3.3 Defining Health Promotion**

When defining health promotion the patient representatives focused mainly on the management of diseases. One defined it as “*proactive healthcare management*” to improve patient “*adherence to medications*” and management of lifestyle to reduce the impact of diseases. The other patient representative referred to the importance of “*soft*” interactions:

*In terms of health promotion, it doesn't have to be hard ... just needs to be soft information ...you know, “it's a lovely day. I hope you walked down and didn't come in the car”, you know. And that just sparks something in the mind. “God I have to get out and do a little bit more”.... It's someone taking the interest in them as well, which is a huge thing. (PR)*

The policy makers provided a broader definition of health promotion, concentrating more on primary prevention interventions:

*I probably think on the health promotion side that it needs to start with school children level if you're talking about consumption of alcohol, if you're talking about exercise, if you're talking about all of these things. I think people get into a way of life, a pattern of life from early on, it becomes very difficult to change thereafter and I think it's a slow burn if you understand me. (PM)*



One contributor felt very strongly that health promotion was purely about promoting healthy lifestyles and specifically pointed out the fact that health promotion was not disease based. Once diseases were developed, albeit from poor lifestyle, these became public health issues, rather than health promotion issues:

*Health promotion is to do with smoking, it's to do with lifestyle ... it's not disease based ... A lot of the chronic diseases are lifestyle based, you know, chest problems cardiovascular problems, some of the cancers ... they're diet based, smoking, alcohol based ... Now we can say, don't smoke, smoking is bad for you, so that's health promotion, but if you decide then on blood pressure and start giving somebody tablets or in cholesterol ... that's not health promoting, because that is a public health issue. (PM)*

This policy maker was asked if screening services were considered part of health promotion:

*In the vague area of something like screening ... we don't get involved, it's led by a public health requirement, not on a health promotion requirement. So we try to keep ourselves away from those type of medical interventions. (PM)*

#### 7.4.3.4 Facilitators

Theme	Total Number of references (n)	Number of references made by each interviewee (n)				
		Patient Rep 1	Patient Rep 2	Policy Maker 1	Policy Maker 2	Policy Maker 3
Characteristics of the community pharmacy setting	24	3	5	3	10	3
Pharmacist expertise	24	4	8	1	7	4
Increased pressure on the health service	21	0	11	4	4	2
Proactive approach by pharmacists	18	7	3	4	3	1
Research and/or evidence	10	0	6	3	3	0
Please note: These quantitative representations of qualitative data are only intended to provide the reader with insights into the nature of the conversations and can not be interpreted to signify the relative importance of issues.						

Table 7-3 Summary of factors which facilitate pharmacist involvement in health promotion

Each of the stakeholders was asked to identify factors which they felt facilitated involvement by pharmacists in the area of health promotion. The most regularly arising themes are outlined in Table 7-3.

#### **7.4.3.4.1 Characteristics of community pharmacy**

The characteristics of the pharmacy setting, such as geographic distribution and accessibility were considered factors which would facilitate pharmacist involvement in health promotion:

*The pharmacist is the one health care professional who sees ... patients every single month, because they're coming for their medications. So they are in an absolutely fantastic place in order to actually provide support. (PR)*

*Clearly the pharmacist has a big role to play because of their interface with the patients and their huge knowledge. (PM)*

The issue of accessibility was emphasised by several of the stakeholders, however its importance was highlighted considerably more frequently by one of the policy makers than by the other contributors.

#### **7.4.3.4.2 Expertise**

Adequate pharmacist expertise was considered another important factor which would facilitate involvement in health promotion. For the stakeholders who felt that the future role of pharmacists should concentrate on the provision of advice, it was generally felt that the pharmacist was already adequately equipped to deliver this role:

*From a pharmacist's point of view this is all basic stuff to them. They should know this anyway. It's not as if they have to learn anything specifically. (PR)*

Where new services were discussed, stakeholders repeatedly discussed the fact that training and demonstration of competence would be required to facilitate such role development:

*This is **all** linked to training. This is all 100% training if you're dealing with patients ... they need to have the competencies to look after the particular service that they're going to specialise in or whatever, that there's appropriate training to give to the pharmacists to deliver their job. (PR)*



*You'd have to show that pharmacists had the competence. (PM)*

One of the patient representatives suggested that pharmacists should have the opportunity to specialise in areas of interest:

*Certain pharmacists may not be interested in providing you know the bells and whistles for all sorts of activities. They may be only interested in dealing with diabetes or cardiology or whatever else it is. So therefore the competencies that they're going to need are different to the general type of pharmacist who's going to have everything on the radar, in a general practitioners way. (PR)*

#### **7.4.3.4.3 Pressures on the health service**

In general it was felt that the increased focus by government on service delivery in the primary care setting rather than in secondary care would increase pharmacist involvement in health promotion:

*The whole focus is on delivering services at a primary care level and therefore pharmacy surely has a huge role to play in that, and I think it keeps people out of the hospitals and away from the more expensive services. (PM)*

Whilst there were manpower issues within other areas of the health service, it was felt that these did not pose any problems within pharmacy:

*We usually have a lack of qualified people in the likes of GPs and certain areas and dieticians and physiotherapists...whereas in pharmacy then there certainly have been a huge increase in the number of pharmacies springing up. (PM)*

It was predicted that issues relating to GPs such as increasing fees, decreased time for patient consultations and future manpower shortages would facilitate the future development of the health promotion role of the pharmacist. These points were predominately made by one of the patient representatives, whose comments accounted for over a half of the comments made about the increasing pressure on the health service:

*We've got to be practical in Ireland. We're going to have a huge shortage of general practitioners ... it makes logic to me if you have two and a half thousand pharmacists out there that that's the one that you look at. The greatest density, they've got the education and training, they understand the medicines. (PR)*

#### **7.4.3.4.4 Proactive approach by the profession**

All of the interviewees commented that pharmacists needed to adopt a proactive approach to developing new initiatives:

*Pharmacists have to make the step, it won't be made by patients. (PR)*

Policy makers felt that if pharmacists wanted to see development of the role, they needed to be more proactive in engaging at a policy making level:

*So pharmacists themselves can look for those things happening and be more proactive and say well look we'd like to be on that committee because we think we'd have something to bring to it. (PM)*

One policy maker stated that the profession were more likely to be successful in developing the health promotion role of the pharmacist if it could be shown that they could deliver on areas that were important to the government:

*Particularly have a look at the programme for government to see if there is anything that's coming up that they've promised to do that isn't being done ... show that you're able to assist and giving added value. (PM)*

One of the patient representatives added to this by saying that strategic levers should be used to facilitate a change in role for pharmacists. It was suggested that if a patient benefit could be demonstrated from services which were developed for private patients, patient advocacy groups would then lobby for such services in the public sector:

*You have to do it by stealth. And now we're talking strategy. And the strategy there would be that the service is offered to the private sector where they pay for it ... and it's very shortly after than then that the likes of ourselves would be very quick off the bandwagon to say why are patients, private patients getting that? (PR)*

This patient representative also suggested that pharmacists should focus on community needs when developing health promotion services:

*I think that it all has to be patient driven from the local community, in other words, meeting the needs of the local patients. (PR)*

#### **7.4.3.4.5 Research and evidence**

The issue of adopting a proactive approach was linked to the issues of research and producing evidence. Most of the stakeholders suggested that evidence was required to demonstrate the benefit of new pharmacist roles:



*I would say set up the pilots ... trial it for six months or a year, see how it goes, see what the reaction is ... get the feedback from the patients, they've used the service ... but the whole thing is to generate research. (PR)*

One policy maker suggested that by adopting such an approach pharmacists would be in a stronger position to negotiate with government for support for services:

*I would **love** to see the profession pioneering some good practice. And so saying "we're going to pioneer this now and we're going to show" and almost forcing the state to say "this is the way and ... let's do it everywhere". Have a little pocket, a little cell of where they can show some of the stuff they perform by way of trying to encourage us to contractually engage with them on these issues. (PM)*

#### **7.4.3.4.6 Other themes**

One of the policy makers felt that pharmacists would find it easier to develop their professional role if they were clearer about the demarcation between their professional and commercial roles:

*I think maybe what they need to do is pinpoint the element of what they do that is part of the primary care team and should be part of the primary care team and maybe be able in some way to separate in their heads what is and isn't healthcare as opposed to selling things. (PM)*

This contributor also emphasised the necessity of developing "good relationships with the representatives of the **other** primary care professionals" and that the commercial perceptions should be acknowledged when engaging with these groups:

*Just acknowledge that "yes, we do a couple of different things but you know one of our, I suppose our core activity is this and it's only in that regard that we expect to be in co-operation with the rest of you". (PM)*

It was felt that communication with other healthcare providers would enable pharmacists to be clearer about their role in the primary care team:

*They [pharmacists] should be meeting with ...the bodies for the different health professionals ... and maybe get a clearer perception of the relationship that they should have with the other providers of primary care. (PM)*

#### **7.4.3.5 Barriers**

In total there was more discussion of the barriers than of facilitators. Table 7-4 provides a number of the main themes amongst the barriers.

Theme	Total Number of references (n)	Number of references made by each interviewee (n)				
		Patient Rep 1	Patient Rep 2	Policy Maker 1	Policy Maker 2	Policy Maker 3
Finance - Commercial role	28	7	9	4	8	0
Finance - Reimbursement structures	25	5	4	7	2	7
Research or evidence	28	15	5	5	0	3
Policy	28	0	5	10	6	7
Nature of pharmacist interactions	21	17	0	2	0	2
Contractual and regulatory issues	15	2	2	6	5	0
Customer expectation of pharmacy	15	3	3		9	0
Relationships with other professionals	14	0	4	6	4	0

**Please note: These quantitative representations of qualitative data are only intended to provide the reader with insights into the nature of the conversations and can not be interpreted to signify the relative importance of issues.**

**Table 7-4 Summary of barriers to pharmacist involvement in health promotion**

When considering barriers to health promotion, economic issues received more far more attention than any other factor. This was split between two sub-themes; one of which related the pharmacist's commercial role and the other of which described reimbursement structures as a barrier to development.

#### **7.4.3.5.1 Commercial role of the pharmacist**

With regard to the pharmacist's commercial role, some of the stakeholders felt that there was no interest amongst pharmacists to engage in health promotion activities that did not generate income:

*If you look at the new shops now compared to the old shops. If you look at the new shops, they have product everywhere. The days of having leaflets is all gone ... there is nothing there you can pick up and walk away with anymore.*



*And if you send them stuff, they don't want it because they'd rather go and put throat lozenges there instead. (PR)*

As evidenced by this quote, it was suggested that this pressure was felt more by pharmacists in new shops rather than those working older shops. This view was shared by all the other stakeholders:

*I can think of a few [pharmacists] that I've met over the last couple of years that you know, started out and gone out on their own and all that sort of stuff and they're hungry to get their pay, get their mortgage and get their staff bills and this that and the other, it's driven by the business side ... they're paying off big loans, you know. (PR)*

*People [pharmacists] got loans and they have mortgages and they have all sorts of overheads, the newer ones in particular. (PM)*

The patient representatives aired concerns regarding the sale of non-healthcare related products in pharmacy. One of the policy makers also expressed concerns over this issue, but was not sure if this could be changed:

*I don't know that you can change that either because they're not going to break even presumably if they don't have a broader range of products. But maybe they need to make it clearer in some way, you know, what are they different elements. It's like, you have a post office that might also sell bread and things. Maybe they just need to separate them out. (PM)*

One of the policy makers also commented on the fact that pharmacies did not appear to promote themselves based on the professional services that they could offer, but concentrated instead on advertising the commercial aspects of their business. It was suggested that these commercial aspects caused pharmacists to be peripheral to the primary healthcare team:

*I think we would see [pharmacy] as peripheral maybe, you know ... maybe in the sense that they're in a commercial premises rather than in a health building and maybe that is, that does kind of make them peripheral at times. (PM)*

This issue was also raised by another policy maker who provided a very specific example of how pharmacy had previously been excluded from a consultative forum. This contributor also explained that such difficulties were not specific to pharmacy but were also shared by other health professionals who did not work in the public sector:

*Generally the private healthcare sector is excluded. In terms of consultation ... we have this consultative forum coming up. It's a statutory requirement. In the memo that came up to me about who should participate I wrote down "are pharmacists being invited?" Now to be honest with you it was because of you coming on Monday. You were on my mind. I just... I don't think they were invited last year. And the same with the private hospital sector, we sometimes just exclude them ... 22% of our health expenditure is private expenditure, so we do need to involve more of the private providers, but the issue for the department and the HSE would be one of how do we pay them? ... I think it's because of that rather than anything else to be honest with you is the reason [pharmacists] are excluded. But the private hospitals are exactly the same. That's my view ... We were reviewing dental policy and the same thing arises there. A lot of dentists will say you know, "you only consider your own dental employees". The state has employed a couple of hundred dentists and they're the only ones that ever get consulted. So I think it has to do with the private enterprise nature of pharmacy. (PM)*

#### **7.4.3.5.2 Reimbursement structures**

With regard to reimbursement structures one of the policy makers felt that the current structures acted as a disincentive for pharmacists to develop services. They raised the specific example of medication reviews, and suggested that current pay structures could reduce pharmacists' motivation to rationalise drug regimens:

*How would you encourage a pharmacist to say for example [Name of person] doesn't need to be on any medication? Could you ever get to that situation when the pharmacist has a beneficial interest? (PM)*

One of the patient representatives shared a similar concern, highlighting the fact that the provision of advice was not associated with any payment:

*Even if they're giving up that time it's not financially beneficial to them. (PR)*

Many of the stakeholders felt that it would not be feasible to ask pharmacists to deliver services without payment:

*It comes down to the cost and it comes down to how to balance money against evidence. It's always money, and this is where it goes back to, I'm not defending pharmacists but at the end of day it has to come down to the bottom line. (PR)*

Yet, it was generally felt that there would be no funding available for any new services, particularly given the economic difficulties being encountered by the government at the time:



*Pharmacies ...will require support and funding, and that's the problem. There's none, and there's **definitely** none in the next couple of years. (PM)*

In particular this policy maker outlined how it would be difficult to justify funding health promotion services as funding which was allocated to health promotion was often redistributed to secondary care:

*Other things are more important ... it's the critical services, it's the demand led services ... they've taken money from health promotion budgets last year and this year to shore up funding problems elsewhere. So health promotion is one of the target areas that they take money from. (PM)*

This policy maker went on to ask:

*What government thinks beyond the next election? ... planning for some service like health promotion is a long, long strategy. And it's very hard to get people to commit a long term strategy that won't show a political gain in the short term that they can take credit for. (PM)*

Another policy maker described difficulties in demonstrating cost-effectiveness:

*We have (seen) proposals ... on medicines management from the pharmaceutical sector in the past, and they have been examined...it just wasn't cost effective. (PM)*

With regard to funding allocation in government, one of the policy makers described difficulties in how budgets were managed within the health service:

*There is a problem at the moment with the way budgets are structured ... even though it makes more sense to have people in community, people don't want to lose money out of their own budgets. So say there's a set budget for home help, somebody could end up in a very expensive hospital bed simply because they're not being given home help hours. Well that doesn't make **any** sense economically overall, but it might make sense for the person who's running the home help budget ... I think there is a lack of coordination there that needs to be addressed. (PM)*

Despite the obvious difficulties with financing pharmacy based health promotion, the patient representatives emphasised that these issues were not insurmountable. Both discussed the consistent difficulties that they themselves encountered in trying to raise funds for their respective organizations. They described how funding was not readily available but that they would proactively make it happen:

*This thing about the argument about funding ...that's too limiting. If you're setting the horizon, you don't start looking at the ground. It's like our*

*organisation at the moment. We're broke! We have no money in the bank account as of today. But I'm not using that as an excuse to stop doing what I'm doing, do you know what I mean? or that we're not going to make our plans for six months time or the new year or whatever else it is because we don't have enough money now. I know that there's money in the pipeline somewhere and I'll find it. (PR)*

The suggested that pharmacists should adopt a similar approach to developing services.

#### **7.4.3.5.3 Research and evidence**

Many of the stakeholders referred to the lack of evidence demonstrating the benefit of pharmacist services. In the absence of any formal studies, many of the stakeholders reverted to their own experiences or the experiences of acquaintances to provide evidence of the service provided by pharmacists:

*The IPU would strongly emphasise the management role of the medication management or monitoring, to be honest with you, we've no research in this. I don't see that in my own circle happening that much. (PM)*

*I don't know anywhere in the pharmacy sector where some of the things that we are being advised, like medicines management, actually happens in practice. (PM)*

One of the policy makers cautioned about the difficulty of generating evidence in the area of health promotion due to the difficulty of identifying outcomes:

*What is an indicator? What indicator would you like to monitor to see if health promotion is making a difference?... Nobody will know if you are making a difference or not if you stop two or three people smoking per week or per month or whatever. (PM)*

One of the patient representatives was particularly vocal on this issue of evidence, mentioning it more times than all the other stakeholders together. Again, in the absence of any formal studies, they relied on personal experience:

*And again this would be just an ad-hoc bit of research that I'd just done...I would have spoken to patients over a number of years. I mean our national council, which is primarily made up of patients, have no relationship with their pharmacists, other than getting their medications. (PR)*



This contributor did acknowledge that some patient satisfaction surveys had been conducted, but was largely critical of these, feeling that they did not ask the appropriate questions:

*Even if they do a questionnaire ... the questions are probably put down in favour of the pharmacists. Do we provide you with good service? Yes ... and they'll say, "look what we've shown". But where is the in-depth question? Have I ever talked to you about health promotion? If you ask that question you'll probably get no. (PR)*

Therefore, although customer satisfaction polls had demonstrated that customers were satisfied with the service that they received from their pharmacist, this contributor felt that this was not an indication of the quality of pharmacy services, but rather indicated that people had low expectations of their pharmacist:

*They say yes because their expectation is low. They say yes because all they expect is to go in, there's my prescription. My medications are there. Thank you very much and now I'm gone again. That's their expectation level ... If you ask them has your pharmacist ever approached you to talk to you about managing your diabetes or managing your asthma ... what answer would you get? ... what's good service from a patient's perspective? (PR)*

In general all of the stakeholders felt that the general lack of evidence of the benefit of existing pharmacy services would act as a significant barrier to the development of any new services

#### **7.4.3.5.4 Policy**

Each of the policy makers highlighted the lack of involvement of pharmacists at a policy making level as a barrier to the development of health promotion within pharmacy. All three suggested that as a result of this the pharmacy agenda could be forgotten:

*I think pharmacy is just excluded on the basis of omission, just forgetting about it, rather than thinking they were less willing to contribute. I don't think an assessment is carried out where they say "what about pharmacists?" I don't even think the question is asked. It's not in people's consciousness. (PM)*

Any discussion relating to pharmacy that did occur at a policy making level seemed to concentrate on contract negotiations rather than development of the profession:

*The main issue around pharmacists ... was the issue about the HSE withdrawing, or unilaterally changing [pharmacist] contracts. (PM)*

Some of the contributors felt that the relationships between pharmacists and policy makers were driven by industrial relationship issues as demonstrated in quotes from three different stakeholders:

*The contractual issues have kind of determined the relationship. I'd love to see it going outside that ... I actually think a lot of this should happen outside contract, because IR (industrial relations) contractual arrangements, they're necessary and they're important and we have to have them, but they're not the ideal way to drive what I would call quality and patient safety. (PM)*

*I think there is too much driven by the IR [industrial relations] side of it. The IMO [Irish Medical Organisation] the IPU [Irish Pharmacy Union] the hospital IN [Irish Nurses Organisation], and I think the body academic in my view has lost the ground as an advocate. (PR)*

*The trouble about it is that when it goes into the IR process, you do have conflicts of interest. Do you know what I mean? Is it just somebody being genuinely altruistic or is it that there is an agenda here to get an extra few bob out of the system for a particular project? (PR)*

Other, more general, policy issues were also raised. One policy maker described how budgets were allocated directly to the HSE from the Department of Finance, making it impossible for the Department of Health and Children to exert control over implementation of policy:

*The HSE gets their money directly from the government from the Department of Finance so we have no control over what they spend. And that's where the problems are. (PM)*

Another policy maker felt that there was excessive emphasis on secondary care, which acted as a barrier to the development of primary care services:

*Generally speaking I would like to see much more of a public policy focus on primary care. At the moment it's far too focussed on hospitals in my opinion. (PM)*

It was clear from the conversation with one of the policy makers that policy relating to pharmacy, health promotion and public health were controlled by different sections of the their organisation and there appeared to be little over-lap between functions. This presented problems in areas such as screening, which the policy maker did not consider to be part of health promotion or public health.



#### 7.4.3.5.5 Nature of pharmacist interactions

Some of the stakeholders felt that the way in which pharmacists interacted with patients limited their potential for involvement in health promotion (as discussed in section 7.4.3.1). One of the patient representatives was particularly vocal on this issue, accounting for the majority of the quotations in this regard:

*I think one of the major problems is that historically they're way behind the counter and the pharmacist doesn't interact with the patient unless the patient requests it. (PR)*

When probed, this contributor stated that this opinion was not just based on reports from members of their organisation, but also on personal experience. At one stage the contributor made a statement to say that some pharmacists did promote health well. However, following probing, their position changed:

*Contributor: Now it's not **all** [pharmacists], some **do** do it [health promotion] really well*

*Interviewer: Some of them do it really well.*

*Contributor: Yeah I mean. Well, Kind of again, talking to pharmacists they say, "yes we do that". Now whether they do it all is another difference.*

*Interviewer: So have you witnessed any pharmacists doing it well?*

*Contributor: Ah, no. [long silence]*

*Interviewer: So are you just being nice by saying some of them do it well?*

*Contributor: Possibly. [laughs] Possibly. I mean, one of the guys who worked here was going to the same pharmacy for 20 years and he never had a conversation with his pharmacist ... Never. And that's on an ad-hoc basis going around, you'll hear some of the stories.*

*Interviewer: So there isn't evidence that they do?*

*Contributor: No, there isn't evidence no. Now, you know when you look at the PSI report and the strategy, they'll say, "yes we do this" ... but I don't know.*

#### 7.4.3.5.6 Contract and regulation changes

One policy maker suggested that the regulation surrounding pharmacy had acted as a significant barrier to developing the pharmacist's role:

*There has never been a pharmacist struck off in Ireland ... It's just crazy. It will be interesting to see the effect of the new legislation ... the fact that there's*

*a lay majority on the council as well. All of these things are going to influence I think the behaviour, because there has to be abuse of positions. (PM)*

It was generally felt that the new regulations would rectify this situation, although one of the patient representatives did not share this view:

*Well, I know the Pharmacy Act will come in ... But then it has to be audited. And then the pharmacist is going to spend so much time in audit. (PR)*

A more significant barrier was the nature of the current pharmacy contract, and two contributors felt the professional role of pharmacists would not develop until a new contract was negotiated. Most stakeholders made some reference to the large mark-up on medicines:

*They're living now at the moment with the old contract, which is whatever it is, you know the margin plus whatever it is. So my view is the quicker they re-negotiate a new deal and wash out all of the, let that deal with the core activity, and therefore if you are doing other things, that they are just part of the charge. (PR)*

*Get rid of this 40%, 50% mark-up or whatever it is, it's 50 isn't it? It's just not a good way to pay for a service ... I think if we can get around, if we can get away from that in the new contract I think there's a lot of potential to do some of the things that we're saying. (PM)*

A different view was provided by one of the other policy makers who felt that the HSE had been unfair in its negotiations to date with pharmacists and that this was a barrier that needed to be overcome:

*The legislation is a real problem I think. This competition act and not allowing them to have their representatives represent them ... that is a barrier in terms of dealing with the HSE at the moment anyway and dealing with the government. (PM)*

#### **7.4.3.5.7 Customer expectation of pharmacy**

Some of the contributors suggested that lack of customer awareness of the roles that pharmacists could deliver:

*I'd be saying that there is a distance to go in terms of public perception. (PM)*



Some felt that patients did not see pharmacists as someone who could help them in health related matters and that this would need to change if pharmacists were to be seen to play a more active role in healthcare:

*[Patients] are not informed or educated to think that well, maybe I should be getting more from my pharmacist or maybe, and this is going back to the question that patients just do not see their pharmacist as being a fountain of information. (PR)*

#### **7.4.3.5.8 Relationships with other healthcare professionals**

Several contributors raised the issue of pharmacists not being recognised as part of the primary care team, referring to the structure as set out in the health strategy. Policy makers and patient representatives alike felt that this acted as a barrier to pharmacist involvement in health promotion:

*The primary care team at the moment does not include pharmacy, and I think that's a mistake... we're going to have to find an innovative way of involving the pharmacist on the primary care team. (PM)*

This was also raised by one of the patient representatives:

*I've noticed that there is a gap in the primary care centres or the primary care teams they're calling them now. For me the pharmacist is there, but is not integrated as the chiropodist is... I really haven't got a satisfactory answer as to why that's the case. (PR)*

#### **7.4.3.5.9 Other barriers**

One of the other barriers identified by one of the policy makers was the “victim mentality” that can be adopted by some pharmacists. It was suggested that pharmacists should take positive steps to progress the profession rather than complaining about the current situation:

*I do find that there is this terrible victim mentality and I just get a pain in my ear. And when I meet somebody who's positive, I've very high regard for some individuals, who are just, you know, so positive. But others then are just constantly complaining. A lot of them come to my clinic, especially around the negotiation issues, and its one whinge after the next. (PM)*

This comment was provided following feedback of pharmacist comments from the focus groups.

Two of the stakeholders warned that any change in role for pharmacists would take time to implement:

*You'll need to build up over time, you know, you don't want to say that we're going to achieve everything now in the next year, I'd think you'd need timeframes for when you want to get to, and how you're going to get to a point...I mean if the aim is to be able to provide a significant number of other services that are not being provided at the moment, well that's not going to happen in a year, you know, it's going to take building up, it's going to take time to get to that point. (PM)*

#### **7.4.3.6 Role of the pharmacist in weight control**

When asked about the potential role that pharmacists had to play in weight control, all stakeholders stated that a change of lifestyle was the most effective method of weight control. One of the patient representatives felt that pharmacists currently were not in a position to provide information on changing lifestyle due to their lack of contact with patients:

*It's a lot more than just the medications. You're talking about lifestyle, healthy eating, physical activity, as well as communications and there is no interaction between the pharmacist behind a ramp basically behind the counter. They're way back there. (PR)*

This quote reinforced the fact that opinions amongst stakeholders were largely based on personal experiences in pharmacies. The other patient representative was critical of pharmacists stocking slimming products:

*I think that it's motivated by profit, pure profit (PR)*

Some of the policy makers felt that the issue of obesity was caused by lifestyle issues which would be difficult to address in the pharmacy setting:

*I think people get into a way of life, a pattern of life from early on, it becomes very difficult to change thereafter and I think it's a slow burn if you understand me. I don't think you're going to see them this big bang into the pharmacy, or anywhere, wherever GPs for that matter, and suddenly see a huge change of behaviour. (PM)*

*Healthy eating is about food essentially, not about diet pills or you know, anything like that. (PM)*



Generally it was felt that pharmacists could raise the issue of obesity in informal ways during existing consultations:

*This is where pharmacists need motivation and behaviour change training and also facilitation so that they can understand how to make the approach. And a lot of the... you know, "it's a nice day, are you doing any exercise?" "That's a lot different to "you need to cut down your weight". (PR)*

*If I saw someone overweight coming in for whatever they had their problem with I'd be saying you know, "how often do you check your blood pressure? Do you check your blood pressure? It's something to keep an eye on. (PR)*

None of the stakeholders discussed the possibility of establishing structured weight-control programmes within community pharmacies.

## **7.5 Discussion**

### **7.5.1 General Attitudes to Pharmacy - Current & Future Roles**

The general sentiment expressed by all stakeholders was that although they recognised the potential for using pharmacy as a health promotion setting, they were not quite sure how this could be achieved. It was obvious that there was no shared vision regarding development of the pharmacist role in health promotion and that the stakeholders generally relied on their own personal opinions and experiences to generate ideas. As a result the ideas which were generated were not always aligned with each other. There was consensus that all stakeholders wanted to see pharmacists having greater involvement in patient care, but they generally weren't sure about how this should be achieved.

Such sentiments were similar to those expressed by English Minister for Health by Dr Gerard Vaughan at the British Pharmaceutical Conference in 1981 where he observed that "*one knew there was a future for hospital pharmacists, one knew there was a future for industrial pharmacists, but one was not sure that one knew the future for the general practice [community] pharmacist*" [422]. This comment prompted immediate action from pharmacy bodies in the UK through public campaigns and the development of pilot projects [264]. Although unpalatable at the time, the public utterance of these doubts about the future of community pharmacy provoked initiatives which have ultimately resulted in recognition of the role of pharmacists in Great Britain in service delivery, as evidenced by the many policy documents and white papers. Although the stakeholders who were

interviewed as part of this study did not explicitly question the future of community pharmacy, they often stated that they were not sure how the profession should be developed or how this could be achieved. In contrast to Dr. Vaughan's public declaration, such statements have never been publicly made in Ireland. At the launch of the Pharmacy 2020 interim report the Minister for Health stated "*I am a strong fan of enhancing the role of healthcare professionals. Pharmacists are among the brightest in the country, they get a fantastic education and training, but very often their huge skill is not put to its full potential. I believe we haven't used pharmacists to their full potential*" [423]. The comments made in the interviews suggested that what remains unsaid in such statements is that policy makers don't really know what "*full potential*" represents.

A lack of a shared vision for pharmacists' future roles is likely to reduce the ability of patient representatives or policy makers to champion the role of pharmacists in health promotion at a policy making level. In America, Rappaport et al. suggested that the success of public health roles for pharmacists depended on general agreement on the acceptance of these roles by the relevant stakeholders, including pharmacists, pharmacy leaders, consumers, and physicians [233]. It was evident from the interviews that both the Pharmaceutical Society of Ireland (PSI) and the Irish Pharmaceutical Union (IPU) had communicated their vision for pharmacy to the various stakeholders. A number of the stakeholders were aware of the PSI's Pharmacy 2020 interim report [421] which outlined a vision for the development of the pharmacist's role. In fact the patient representatives indicated that they had attended meetings with the Society to discuss the strategy's aims. All stakeholders indicated that they had also received representations from the IPU about the future of pharmacy. Yet, it was obvious from the interviews that these initiatives had not been successful in achieving acceptance of future roles amongst the stakeholders. Two of the stakeholders indicated that they did not agree with the content of the Pharmacy 2020 interim report, with one dismissing it as "*pillow talk*". Representations made by the IPU were generally perceived as being focussed on industrial relations issues rather than creating a vision for the development of the professional role. These comments indicated that, despite the efforts which had been made by the pharmacy representative bodies, stakeholders were not sufficiently engaged to act as effective advocates for the development of the pharmacist's role. If Rappaport's assertion is correct, and the success of public health roles for pharmacists depends on their acceptance by relevant stakeholders, it would appear that new approaches need to be taken by the Irish pharmacy representative bodies to engage stakeholders in this regard. A more fundamental concern



raised by these interviews was that, as well as being unclear about the future role of pharmacists, a number of the stakeholders unsure about pharmacists' current roles. This also needs to be considered when engaging stakeholders,

In general contributors felt that most pharmacy interactions were very limited in nature and were generally facilitated by counter assistants rather than pharmacists with a perception that pharmacists rarely interacted with customers, but were instead hidden in the dispensary. These comments supported findings in the UK by Ward et al. who reported that medicine counter assistants dealt with 84% of the sales of deregulated medicines [271].

When discussing the role of the pharmacist, stakeholders raised particular concerns about the dichotomy of the commercial and professional roles within pharmacy with all but one suggesting that this aspect compromised pharmacists' credibility as healthcare professionals. It was suggested by all of the stakeholders that increased competition within the sector had created additional pressure on pharmacists to generate profit and it was suggested that this eroded the professionalism of pharmacists. Two aspects of these statements warrant discussion. Firstly, competition within the sector has been largely driven by government policy relating to pharmacy. The restrictions on new pharmacy openings which were introduced as part of the 1996 contractor agreement were abolished by the government in 2002 [424]. Despite recommendations from an independent Review Group, no restrictions were subsequently applied to awarding of new contracts [89], and as a result there are no restrictions on opening new pharmacies. Therefore increased competition is something which has been largely created and indeed encouraged by the government and it seems incongruous for policy makers to suggest that this competition is compromising the professionalism of pharmacy.

Secondly the dilemma presented by the conflict between generating income and delivering patient centred care is not unique to pharmacy. In a review of professionals' dilemma between service delivery and generating income, McDowell [425] described how this balance must be maintained by nearly all professionals, including surgeons, medical professionals, lawyers and stockbrokers. It did not seem to be recognised by the stakeholders that most healthcare professionals operate in business environments, albeit in a less overt way than pharmacists. Although some of the stakeholders commented on the fact that fees for some GP consultations were excessive, they did not suggest that these

financial aspects detracted from the professional role of doctors. When discussing pharmacy they frequently referred to the retail nature of the shop. A number of stakeholders referred to the fact that pharmacies had "*product everywhere*" and alleged that pharmacists were no longer interested in displaying information which did not generate income, resulting in increased commercial emphasis. Spencer et al. drew similar conclusions following distribution of a postal questionnaire to GPs in the UK [426]. 27% of those surveyed indicated that pharmacists were too influenced by commercial pressures to give unbiased advice.

It was evident that the stakeholders were unaware that there were a number of measures in place to ensure that pharmacies include non-commercial space in pharmacies [389, 427]. Prior to awarding a new pharmacy contract, the HSE conduct an audit of the proposed premises and stipulate that an area must be available for the provision of health promotion and information material to customers and patients. Therefore all new openings must have such areas available. In addition, since November 2008 all new premises must include a "*separate and designated area*" available for patients with a requirement for existing premises to incorporate such areas by November 2010 [389, 427]. In anticipation of these standards many pharmacies had already incorporated such areas at the time of the interviews, as evidenced in the focus group discussions. Yet the concept of pharmacy consultation rooms was not raised by any stakeholder. Quite a few suggested that information areas should be incorporated into shops, indicating that they were unaware that these already existed. Despite the commercial environment of pharmacy, Kennedy et al. found that pharmacists were generally not driven by commercial pressures when advising patients [309]. Several authors have discussed other reasons for the increased commercialisation of pharmacy including the rise in consumerism within healthcare in general [428] and an increase in the direct advertising of medicines to consumers [429, 430]. These aspects were not considered by any of the stakeholders in these interviews.

Most of the stakeholders made reference to the remuneration of pharmacists, and in particular, to the mark-up on medicines. It was felt that current payment arrangements were untenable and would need to be changed. This served to demonstrate that there was some validity to the assertions by pharmacists in the focus groups that policy makers thought that pharmacists were currently paid too much.



It was clear that many of the stakeholders' opinions of pharmacy were based on personal experiences of pharmacy. Stories were provided of aunts, mothers, husbands and other family members who had used pharmacies but had not benefited from interaction with the pharmacist. It was this evidence of everyday practice in pharmacies, or lack thereof, which seemed to be one of the more important influencers of stakeholder views.

### **7.5.2 Definitions of Health Promotion**

There was considerable difference in how patient representatives and policy makers regarded health promotion. The patient representatives defined it in the context of helping people to cope with existing illnesses or to screen those at high risk of developing illness. This was probably influenced by the fact that both contributors represented populations with existing conditions and therefore, in defining health promotion, focused on people with pre-existing conditions rather than the wider population. This definition was more reflective of health education rather than health promotion and largely ignored the public policy aspects of health promotion [4-6, 343]. Given that pharmacists' health promotion activities are frequently supported by patient representative organisations, this may contribute to the limited approach to health promotion in pharmacies.

In comparison the policy makers tended to have a much broader approach, indicating that population-wide, lifestyle interventions at various levels were needed for health promotion initiatives to be effective. Issues such as alcohol consumption, smoking, exercise and diet were frequently mentioned as lifestyle issues that needed to be addressed. It was generally felt that these were best modified through the implementation of policy initiatives rather than through education initiatives and examples were provided of legislation which had been introduced in an effort to reduce alcohol consumption and rates of smoking. This definition of health promotion was in line with modern views of health promotion which recognise the importance of policy in health promotion. Building healthy public policy was one of the strategies advocated in the Ottawa Charter [1] and its importance was again reiterated in the Jakarta Declaration [3]. However other strategies which were advocated in these health promotion papers such as strengthening community action and developing personal skills were generally not discussed by policy makers. In fact, measures such as screening and disease management were perceived as lying outside the remit of health promotion due to the fact that they focussed on sub-groups of the population. It was proposed that these were more accurately described as public health issues. The policy makers interviewed in this study felt that, other than reinforcing positive health messages,

the potential for pharmacist involvement in health promotion initiatives was limited. Therefore, if pharmacies are to progress the development of services, such as screening or disease management within community pharmacies it may be more appropriate to do so by engaging with policy makers in the area of public health or pharmacy policy rather than those in the area of health promotion. If pharmacists are to increase their involvement in health promotion, in its true sense, they will need to convince health promotion policy makers of their capability in this area.

### **7.5.3 Factors which Act as Barriers to Pharmacist Involvement in Health Promotion**

Economic factors generated the most discussion amongst stakeholders as barriers to pharmacist involvement in health promotion. Many stated that the health service was under increasing financial pressure and would not have the resources to fund new services. Although lack of funding has been identified as a barrier in previous studies of stakeholder attitudes [45, 413, 417] the Irish situation represents some particular challenges. At the time of the interviews particular efforts were being made by the HSE to reduce existing pharmacy payments, resulting in disputes with the IPU.

Some of the policy makers suggested that development of the professional role of pharmacists would be impossible until there were changes in the reimbursement arrangements as they felt that there was no incentive for pharmacists to provide advice without the associated sale of a product. These comments were similar to those made by Maguire in 1990 regarding the UK contract, who stated that community pharmacists would only play a minor role in the area of health and promotion until it was included in the pharmacy contract. The UK pharmacy contract has since been developed to incorporate contractual arrangement with pharmacists for the provision for health promotion and advanced pharmacy services [431]. Similar steps may be needed in Ireland if the issue of reimbursement for services is to be addressed.

Stakeholders also expressed concern at the lack of evidence demonstrating the effectiveness of pharmacy based health promotion. The importance of such evidence was discussed by Anderson et al. [400] who stated that there was a need to generate a more substantial body of research in the area of pharmacy-led public health initiatives. Some countries, such as Australia, have formally supported pharmacy practice research through substantial funding programmes [265] and this has resulted in an expanding evidence base. In other countries, such as the UK, although less structured funding is available for



research, there have been opportunities to develop pharmacy based studies through public funding from Primary Care Trusts. In this regard, a commentary by Anderson demonstrated the importance of publicly funded UK initiatives such as the Healthcare in the High Street [41] and the Barnet High Street Health Scheme [40] in providing evidence of the contribution that pharmacists could make to health promotion [264]. In Ireland lack of research is partly due to lack of funding and partly due to the lack of formal mechanisms by which to develop research projects in conjunction with the health promotion departments of the various health boards. Any funded health promotion research which has been conducted in Ireland appears to be mainly focussed on the development or evaluation of health promotion initiatives within the health boards with a strong emphasis on schools programmes or community based campaigns [424, 432-435]. The lack of health promotion research in pharmacy is matched by a lack of such research within other professions such as nursing, dentistry and medicine, but this was not discussed by the stakeholders. All the stakeholders felt that the lack of research in pharmacy needed to be resolved by the profession itself, by proactively funding and establishing research projects. Despite these assertions, stakeholders expressed reservations about research that had been conducted by the pharmacy sector in other areas, with one suggesting that such questionnaires were biased to produce results that portrayed the sector favourably. This highlighted an inconsistency in the argument made by stakeholders and raised the question as to whether research which has been commissioned, financed and conducted by the profession would also be considered biased.

As well as developing an evidence base for health promotion services, stakeholders commented that pharmacists were not sufficiently involved in policy making processes. All of the policy makers gave examples of joint committees and working groups, many of which were concerned with health promotion issues, which could have, but didn't, include pharmacists. It was repeatedly suggested that pharmacists were simply "forgotten" when committees were formed, and that pharmacists should be more proactive about getting involved. However these comments highlighted a more fundamental problem; that there are no clear mechanisms for including pharmacists at a policy making level. This may be partly due to the fact that pharmacists are viewed as private enterprises and there is no mechanism within the government or HSE to include the private sector in policy development. As outlined by one of the policy makers, the exclusion of private entities from policy development is a significant issue, given the high dependence on private healthcare in the State. Added to this is the fact that there is no clear strategy for pharmacy

within government, the Department of Health and Children or the HSE. The programme for government included commitments to “the further development of the nursing profession” and to “introduce improved supports for GPs” including the provision of start up funding towards premises, equipment, security and professional support [436] but made no mention of pharmacists. Following publication of the programme, the IPU made a submission to highlight the ways in which pharmacists could help government in achieving its aims [437] thus demonstrating a pro-active approach. However, such approaches are likely to be futile if they occur after such documents have been published. Given that pharmacy was not included in the programme for government, it is inevitable that development of the profession will not be considered in the annual HSE National Services Plan which gives effect to the proposals outlined in the programme for government. Adding to the difficulties are the prolonged absence of a Chief Pharmacist within the department and the re-establishment of the Pharmaceutical Society as the Pharmacy Regulator under the Pharmacy Act 2007. The lack of influence on policy is further exacerbated by the lack of pharmacists as public representatives. Of the seventeen members of the Joint Committee on Health and Children, two are medical practitioners and one is a nurse. In contrast, no pharmacists serve on the committee or indeed serve as any one of the 166 members (Teachta Dála) of the Irish House of Representatives (Dáil Éireann).

Similarly stakeholders felt that pharmacist exclusion from the primary care team acted as a barrier to pharmacist involvement in health promotion. This was also identified as a barrier by Ursell et al. in the UK context [413]. Many of the stakeholders expressed confusion as to why pharmacy had not been defined as part of the primary care team in the Department of Health’s Primary Care strategy [63] feeling that this reduced pharmacies ability to develop primary care services. This view was also shared by the Pharmaceutical Society of Ireland, who saw it as a “*relegation*” of the role of pharmacists [91]. However the IPU supported the exclusion of pharmacy from the primary care team because they felt that such moves would lead “*one pharmacy to corner the market leading to the closure of other pharmacies*” [90, 438]. Given that the purpose of the IPU is to “*to promote the economic and professional welfare of members*” [95] it is natural that they would be wish to avoid arrangements which might result in the closure of pharmacies. This demonstrated a difference in opinion between the leaders of the profession (IPU and PSI) about the direction that pharmacy should take in the new primary care structure. It is not surprising



therefore that there was confusion amongst stakeholders regarding pharmacists' positions in primary care.

The difficulty with excluding pharmacists from the primary care team lies in the fact that government focus is now on developing the primary care team, as evidenced by the €2.1 billion capital investment programme outlined in the programme for government [436]. Measures are to be put in place in 2009 to facilitate shared clinical meetings within the primary care team including the development of agreed standard protocols and processes involving team development training, information sharing guidelines, referral protocols, clinical team meeting guidelines and key worker roles [260]. Although it is envisaged that the Primary Care Network will support these primary care teams there do not appear to be guidance on how the interaction within the team, or between the team and network should be managed.

The debate regarding the exclusion of pharmacists from the primary care team highlights the ongoing conflict between professional and commercial issues within pharmacy. Whilst the inclusion of pharmacists in the primary care team would have led to the demise of many community pharmacies leading to decreased accessibility for patients, it was felt by the stakeholders in this study that exclusion from the team would act as a barrier to the professions attempts to establish itself as a primary care provider. Although the stakeholders felt there should be closer links between pharmacists and members of the primary care team they had no clear ideas on how this could be achieved.

#### **7.5.4 Factors which Facilitate Pharmacist Involvement in Health Promotion**

Despite all of these barriers, the stakeholders felt that there were many aspects of pharmacy that would facilitate pharmacists in developing their role in health promotion. In particular all stakeholders recognised the benefits of accessibility due to location of pharmacies within communities an issue which is widely recognised as being a key benefit of pharmacist involvement in health promotion [13, 41, 46, 47, 50, 258, 439, 440]. There was general consensus amongst the stakeholders that pharmacists were well qualified to provide advice and a number stated that it would be important that pharmacists were fully trained to deliver any new services that might be developed.

Most of the stakeholders felt that the increased pressure on the health service, particularly the pressure on secondary care and on GP services in primary care, increased the likelihood of government considering the development of pharmacy based services. This is similar to what has occurred in the UK where deregulation of medicines from Prescription Only Medication classification to Pharmacy Sale and commissioning of pharmacy services were some of the approaches used to alleviate the pressure on GP services [441]. The establishment of two additional schools of pharmacy in Ireland in the past decade have resulted in additional pharmacy graduates, resolving manpower issues which previously existed. This contrasts to the ongoing manpower issues experienced by GPs [442, 443]. The assertion that GPs were over-burdened was supported by a study by MORI, an independent market research company, which found that 61% of doctors said that the average length of consultation did not permit them to fully explain the details about medicines that they prescribed for patients and suggested that patients use other sources of information including pharmacists and the internet [444].

Stakeholders felt that pharmacists themselves could act as facilitators of change within the profession. They felt that generating evidence through research and proactive involvement with stakeholders could facilitate greater pharmacist involvement in health promotion. Yet, despite these statements, some of the stakeholders demonstrated negative sentiments towards steps that had already been taken by pharmacists in this regard. Research conducted by the IPU was dismissed as being biased and the Pharmacy 2020 interim report did not seem to be perceived as a credible attempt to develop a vision for pharmacy. Therefore the extent to which these factors would genuinely facilitate change could be questioned.

### **7.5.5 Pharmacist Involvement in Weight Control**

Few of the stakeholders felt that pharmacists role in weight control could extend beyond the provision of general lifestyle advice. From a policy maker's perspective it was felt that legislative changes and population-based interventions were required and that little could be achieved in the community pharmacy setting.

### **7.5.6 General Discussion**

In general, many of the issues raised by the stakeholders in this study have been raised in previous studies in the UK [45, 413-418]. However one of the marked differences between those studies and this research is the status of the individuals who influence pharmacy policy. In the UK, a range of policy making roles are specifically focussed on pharmacy



issues. For example Anderson explored the views of pharmaceutical advisors in English health authorities [45], Ursell interviewed those responsible for pharmaceutical policy at health authority level [413] and Bush interviewed and surveyed chief pharmacists at primary care organisations [415-418]. No such roles exist in the Irish situation. With the exception of the Chief Pharmacist (a role which was left vacant between 2005 and 2009), no pharmacists are employed at a policy making level in Ireland. Even the Chief Pharmacist role has a limited effect on policy, with his/her primary responsibility being to act as an advisor to the government on national and international legislation and to ensure Ireland's compliance with relevant European directives, rather than to develop policy. This lack of pharmacist expertise at a policy making level is likely to significantly hinder the development of pharmacy related policy in Ireland. The policy makers who were interviewed had a remit over a wide range of areas, of which pharmacy only formed a small part. This may account for the general apathy and lack of vision regarding pharmacy-related issues which was observed amongst the stakeholders in this study.

There were a number of internal contradictions in the stakeholders' views. Policy makers felt that increased competition was eroding professionalism within the sector, yet any pharmacy related policy which has been developed in recent years has been introduced with the explicit intention of increasing competition within the sector. Patient representatives suggested that pharmacists needed to be more proactive in producing evidence of their activity, yet were skeptical of evidence which had been produced by the profession. All stakeholders advocated that pharmacists do more to engage with policy makers, yet ignored the political engagement which was required to progress the development of a new Pharmacy Act.

This study demonstrated that there is inadequate understanding of the pharmacist's role amongst stakeholders. Patient representatives can be powerful advocates for change, and the patient representatives interviewed indicated that they would be willing to lobby for pharmacy services if they felt that this resulted in enhanced patient care. However, despite the fact that all stakeholders felt that the pharmacy setting represented a potentially useful site for health promotion, they seemed unconvinced of how this would work in practice.

### **7.5.7 Limitations**

This study was designed to explore the views of patient representatives and policy makers regarding the role of community pharmacists in the area of health promotion and

successfully achieved these aims. The study was small, and the sample selected was purposive, features which are acceptable within qualitative studies due to their exploratory nature.

As with some of the other studies, the time span over which interviews were conducted was longer than would have been desirable. This was due to work commitments and personal circumstances of the researcher and could not be avoided. The consistency of themes demonstrated throughout the interviews suggested these time differences did not have an affect on the nature of the interview discussions.

The policy makers who were selected to participate in the study were chosen because they had influence over relevant policy making processes. Given the small size of Ireland, it was possible to interview the key policy makers in the area of health and health promotion. However policy makers with a remit in the area of disease prevention and disease management were not included in this study and this should be explored in future studies. Similarly it would be desirable to seek the views of a larger range of patient representatives.

It must be considered that the interview discussions may have been influenced by the fact that the interviewer was a pharmacist. In the interests of transparency each stakeholder was made aware that the interviewer was also employed by Boots, which may also have affected discussions. As discussed by Kreuger there are advantages and disadvantages to using interviewers who have experience in the topic which is being discussed [241]. An advantage of using such interviewers is their familiarity with the topic, which can be a valuable grounding for probing issues and analysing results. However this familiarity can also be a disadvantage in situations where issues are not examined critically and assumptions are made which limit the study. These limitations were minimised in this study by using double-coding systems. This issue could have been overcome by using an interviewer with no experience of pharmacy, but it is likely that pertinent issues and comments could have been overlooked. Since the participants were experienced representatives for their organisations, the extent to which they may have been influenced by the interviewer may not have been substantial



As described in the focus group study, the quantitative information in this research was not assumed to indicate the levels of importance of each issue. Larger, quantitative studies are required if the relative importance of issues is to be understood.

## **7.6 Conclusions**

Although the policy makers and patient representatives who were interviewed in this study declared that they would like to see the development of health promotion initiatives in pharmacy, they did not have any clear ideas as to how this should be achieved. Stakeholders appeared to find it particularly difficult to resolve the issue of the commercial and professional dichotomy within pharmacy and this hindered their understanding of the pharmacist's role. This issue was perceived as a barrier to increased involvement in health promotion. Other barriers included lack of involvement by pharmacists in policy making processes, lack of interaction between pharmacists and the primary healthcare team, lack of funding, lack of research demonstrating benefits of pharmacy led services and lack of expectation amongst customers that pharmacists would be involved in such activities. When asked specifically about the area of weight control, most stakeholders felt that pharmacists were limited in what they could do in this regard.

However, most acknowledged that pharmacists had sufficient expertise to develop their role in health promotion and, with training, could develop competence to deliver additional services. It was thought that the increasing pressure on the health services could provide opportunities for pharmacists to develop new roles but that the profession itself needed to be more proactive in leading this, particularly in the area of demonstrating the patient benefit of such roles through evidence.

Overall, this study suggested that policy makers and patient representatives were unlikely to act as strong advocates for the development of pharmacy related services in the current environment. Most stakeholders based their views on personal experience of community pharmacy. Therefore pharmacist behaviours need to change to make credible the claims of pharmacist representatives.





## 8 Discussion

A summary of the studies conducted as part of this research, and their associated findings, is presented in Table 8-1.

Study	Findings
Literature review (Chapter 1)	Found that that there was evidence of pharmacy based health promotion in Ireland, but efforts were sporadic and ad-hoc and were focussed on health education rather than health promotion. Pharmacist led health promotion had not been identified by the government as an area for development.
Pharmacist Focus Groups (Chapter 4)	Found that pharmacists generally confused health promotion with health education. Interventions were normally aimed at existing customers either during the sale of a product or dispensing of a prescription or through organised events. Most pharmacies expressed a desire for further involvement in the area, but identified a number of barriers to such activity.
Patient questionnaire combined with Simulated patient study (Chapter 5)	Suggested that questionnaires are not an effective way of finding out about health promotion interactions. Pharmacists tended to overestimate the length of consultations and the number of questions asked and the amount of information provided. The simulated patient study suggested that opportunities for health promotion were not always utilised by pharmacists. Communication with patients who were requesting advice on weight control focussed on the provision of general advice with relatively little consideration of lifestyle issues or behaviour change. In general information was not tailored to patients. No patient felt obliged to buy a product.
Feasibility Study (Chapter 6)	Demonstrated that an intervention programme for weight control can be successfully delivered in the pharmacy setting. Having a coordinated programme was useful, but time requirements remained a concern.
Stakeholder interviews (Chapter 7)	Demonstrated that patient representatives and policy makers defined health promotion in very different ways, with policy makers having a strong emphasis on public policy approaches and patient representatives focussing on health education. All commented on the commercial aspect of community pharmacy and felt that this compromised their professional role. They generally felt that current involvement in health promotion by community pharmacists was limited. Although all recognised community pharmacies as potentially useful health promotion settings, primarily due to their location, they did not have any clear ideas about how this could be achieved. They identified a number of issues which they felt acted as barriers to such involvement.

Table 8-1 Summary of the research studies and findings

### **8.1.1 To explore current health promotion practice in community pharmacy**

This research question was addressed through a combination of approaches, including the literature review, the pharmacist focus group study, the simulated patient study and the pharmacist survey.

A consistent finding from each of the studies was that most pharmacy based health promotion in Ireland was targeted at individuals who were at risk of or already experiencing disease and that interventions were generally confined to the provision of information. In general, there appeared to be a lack of understanding of the wider aspects of health promotion amongst pharmacists. These findings were similar to those of other studies. In Australia, Howarth et al commented that despite the broad scope of practice and models, health promotion in pharmacy was often narrowly and poorly defined and consequently the profession only embraced some of its available facets [242]. In the UK, Todd commented that pharmacists tended to work from a medical model of health and needed to be encouraged to see health promotion in broader terms [41]. Jesson and Bissell [243] drew similar conclusions in a critical review of public health and pharmacy and stated that much of the focus of the pharmacy profession has concentrated on health-persuasion techniques rather than on the wider context of public health. The results of the studies presented in this thesis provided some insights into the reasons for this approach to health promotion in Ireland.

Findings from both the literature review and the focus group study indicated that a large proportion of health promotion campaigns were organised by pharmaceutical companies and patient representative groups. Consequently pharmacy based activities were largely driven by the agenda of the pharmaceutical companies (to generate additional sales) and patient representative groups (to provide assistance to a specific group of patients), rather than being driven by a wider health promotion agenda. The agendas of companies and patient groups were best served by targeting individuals who were already experiencing ill health or who were at high risk at developing diseases, rather than focussing on healthy individuals (as evidenced in the way in which the patient representatives defined health promotion in the semi-structured interviews). Although some pharmacists in the focus group study recognised this ulterior motive, they felt that the support from pharmaceutical companies was better than nothing. In general, initiatives with a wider aim of promoting health without any secondary agendas, such as those organised by governmental agencies,



did not include community pharmacies, as evidenced in the literature review and in the focus group study. In fact it was seen from the feasibility study that the Health Promotion Unit was resistant to send supplies of health promotion leaflets in response to requests from pharmacists. This issue was also raised as a barrier in the focus group study.

The tendency to focus on individuals who were already experiencing ill health was likely to be due to the pharmacist's primary role of providing a service to individuals who are already ill [445]. This is further exacerbated by the fact that pharmacists found it easier to initiate conversations with existing patients and did not feel comfortable approaching people who had not sought their advice (as discussed in the focus groups). They reported that they were afraid that they would be seen as intrusive if they proactively initiated conversations about lifestyle. Some also reported that they did not feel that there was anything they could do to influence people's behaviours. These comments were supported by the simulated patient study, which demonstrated that pharmacy staff did little to engage patients in conversations about current lifestyle habits, but instead structured consultations around the provision of information.

Given the nature of support provided to pharmacies in developing health promotion initiatives, it is not surprising that there is a heavy emphasis on the provision of information. Most organised campaigns focussed on the distribution of leaflets or the display of posters. For example, the IPU provided leaflets and posters to support their campaigns and pharmaceutical companies provided merchandising materials for windows. In fact, if interactions were required with customers, additional staff such as asthma nurses, dieticians or diabetes nurses, were often placed in pharmacies by companies or patient representative organisations, rather than using the expertise of the pharmacist. Therefore the focus was on the community pharmacy as a setting for such campaigns, rather than on the pharmacist as a competent healthcare professional who could facilitate patient interactions.

Although there was general consistency between the results from each of the studies, some inconsistencies were detected. In the focus groups pharmacists stated that they proactively provided health promotion information on an informal basis through their day to day interactions with customers and patients. When specifically asked about the area of weight control, pharmacists in the focus groups said that whilst they did not feel comfortable to proactively raise this topic with customers they were happy to engage in conversations

with them regarding lifestyle issues if specifically asked for advice. The pharmacist survey yielded similar results, with all pharmacists indicating that they would ask patients about lifestyle issues when counselling on weight control. However this was not supported by the findings of the simulated patient study which demonstrated that the level of questioning of patients was low and the information provided tended to be general rather than patient-centred.

Inconsistencies were also found between the studies in relation to the way pharmacists interacted with customers. In the focus groups it was clear that pharmacists valued the relationships that they had built with their customers, with many describing how they often knew entire families. They described how they often provided information to patients on ways in which they could manage their illnesses and it was clear that they derived job satisfaction from providing this additional assistance to people. The feasibility study supported this finding, with many of the study participants describing how they had valued their interaction with the pharmacy team, finding them approachable and supportive. In contrast, all of the stakeholders suggested that there was very little communication between pharmacists and their patients. This finding was supported by the simulated patient study, which suggested that pharmacy staff generally demonstrated very little interest in understanding more about customer's lifestyle habits. This suggests that both situations are true and that pharmacists have different relationships with patients depending on the nature and extent of their interaction with them.

Some of the studies also raised different issues regarding the role of non-pharmacist staff in pharmacies. The issue of non-pharmacist staff was not explored in the survey, and therefore no information was found regarding their role in dealing with requests for weight control advice. In the focus group, the role of non-pharmacist staff received little attention. The topic was discussed briefly by some pharmacists, who said that pharmacy staff could act as a facilitator to health promotion. Yet in the simulated study, over a quarter of patient queries were dealt with by non-pharmacist staff in the simulated patient study, and in a further quarter of cases the simulated patient could not identify the status of the assistant. This demonstrated that the role of non-pharmacist staff was an important issue that needed to be considered in the delivery of health promotion, even though it was not identified as such by the focus groups.



Reports of pharmacist involvement in health promotion in Ireland were low by international comparisons. Anderson, Blenkinsopp and Armstrong conducted a series of reviews of pharmacist involvement in improving the public's health from 1990 to 2001 [10, 11] [12, 446]. In total, 35 experimental studies, 34 descriptive studies, 45 non-peer reviewed studies and 184 local projects were reviewed. A more recent review from 2004 to 2007 identified a further 96 papers [447]. In Australia, Howarth et al. conducted a similar review and identified 300 papers relating to health promotion in community pharmacies between 2001 and 2005, 77 of which were deemed eligible for systematic review. Only one Irish study was identified in these reviews, that conducted by Hamilton, which explored the attitudes of patients to the development of pharmacy services in the West of Ireland.[161]. Similarly, a hand search of the Irish pharmacy literature demonstrated that there was very little documented evidence of health promotion activity in pharmacies. This indicated that research in the area of pharmacy led health promotion had received considerably less attention in Ireland than in other countries, and this was acknowledged in both the focus groups and the semi-structured interviews.

### **8.1.2 To understand pharmacists' opinions and attitudes to health promotion**

In the focus group study, pharmacists generally displayed positive attitudes to health promotion which was evidenced by the fact that many facilitated health promotion initiatives despite the lack of formal processes for involvement. Most felt that they were well placed to deliver health promotion messages and indicated that they would like to increase their activity in this area. Many pharmacists demonstrated personal commitment to developing additional health promotion services for patients by renovating their premises to incorporate consultation areas or by contacting patient advocacy groups or pharmaceutical companies to arrange health promotion campaigns. Some described how they had invested resources by increasing their staffing levels in order to facilitate health promotion events, or had organised events outside of pharmacy opening hours, but such arrangements incurred financial loss. Although no financial incentives were provided to pharmacists, involvement in health promotion was generally seen as a means of exercising professionalism, increasing job satisfaction and establishing competitive advantage through loyalty. Many reported that they enjoyed the increased patient interaction that occurred as a result of health promotion interactions. The positive attitudes demonstrated in this study were similar to those reported in other studies [43, 160, 253].

However, despite these positive attitudes, pharmacists felt restrained by factors over which they felt they had little control. Although most had demonstrated commitment to health promotion through individual efforts, as a group they were pessimistic that their health promotion role would ever be formally recognised outside the profession. Pharmacists seemed resigned to the fact that their role in health promotion would not be developed until there was a change in attitudes amongst policy makers, patients and other healthcare professionals and they believed that there was little that they could do to influence this. They felt that a “top-down” approach was needed to ensure consistency within the profession. This was similar to the sentiments expressed in a UK over a decade ago. Moore [43] reported that pharmacists felt under-utilised and undervalued and that agencies involved in health promotion did not appear to acknowledge the community pharmacy as a either a resource for or contributor to health promotion. Anderson [234] reported that pharmacists felt that they were incapable of change alone, and that the professional bodies, health authority and Department of Health must effectively market new roles.

### **8.1.3 To elicit the opinions of stakeholders regarding the role of the pharmacist in health promotion**

The results from the stakeholder interviews generally validated the assertions by pharmacists in the focus group study that their role in health promotion was not recognised amongst policy makers or by the general public. Most stakeholders indicated that they felt that pharmacists were largely occupied by their dispensing role and did not have much interaction with patients. Results from the simulated patient study suggested that these were valid observations. The commercial setting of pharmacy, the lack of representation at a policy making level, the focus by representative bodies on contractual rather than professional issues and personal experience of pharmacy all appeared to contribute to the stakeholders' views.

In general the commercial nature of the pharmacy was viewed negatively by most stakeholders. Several of the contributors suggested that pharmacists needed to be clear about whether their primary role was as a retailer or a shopkeeper, thereby insinuating that they felt that pharmacists were not clear on this issue. This contrasted to the way in which this issue was discussed during the focus groups where pharmacists were generally very clear that their primary role was as healthcare professionals. Stakeholders did not recognise any of the positive aspects of the commercial environment which had been identified by pharmacists in the focus group study, such as the support for health



promotion which was provided by commercial companies or the opportunities created for interventions through the sales of product. Whilst pharmacists recognised that their environment sometimes compromised their health promotion message, they did not feel that it compromised their professional practice. This was evidenced by the fact that some were prepared to dissuade patients from buying products if they felt this was necessary, as demonstrated in the simulated patient study. This was not understood by policy makers and patient representatives, who consistently expressed concerns that the commercial aspects of pharmacies could compromise pharmacist's professional practice.

Stakeholders did recognise that there was potential to develop pharmacists' roles in health promotion, but, in contrast to the views of the pharmacists, they felt that this needed to be driven by pharmacists rather than by policy. They indicated that research projects should be established, that pharmacists should be more fully integrated in the primary care team and that they should proactively seek opportunities to be involved in relevant committees and meetings. They felt that the power to change how pharmacy was perceived by those outside the profession lay with pharmacists themselves, through their behaviours both in their pharmacies and through their interactions with policy makers, patients and other healthcare professionals. Policy makers in particular were eager that pharmacists should provide evidence to demonstrate the effectiveness of pharmacy based health promotion interventions. Without this they felt it would be difficult to justify pharmacists' role in health promotion. All stakeholders advocated that this "bottom-up" approach was the most effective way of influencing longer term policy.

In making these suggestions, stakeholders did not recognise the impact of many of the constraints which had been raised by the focus group study: that there were no mechanisms by which to collaborate with other professionals due to the structure of primary care; that there were no formal mechanisms by which they could be influence policy; that coordination support was required; or that pharmacists' time was limited due to their legal obligations to oversee dispensing.

There were some internal contradictions within the semi-structured interview study. Stakeholders stated that pharmacists were not proactive in developing their professional role. Yet most were aware of the interim report from the Pharmacy Ireland 2020 working group [421], which set out the Society's vision for the development of extended services in pharmacies. This did not appear to be perceived as a proactive approach to develop

professional services but seemed to be regarded as lip-service. Additionally, it was generally felt that increasing competition was eroding the perception of pharmacists as healthcare professionals, yet most pharmacy related policy which had been introduced by the government in the previous five years had been with the explicit purpose of increasing competition within the sector.

One of the main differences identified between Ireland and other countries was the lack of policy makers who are specifically responsible for developing policy for pharmacy. The policy makers included in this study included Ireland's Minister for Health and Children, the head of Primary Care II division of the Department of Health, an assistant principal officer in the Department of Health and Children and a member of the Oireachtas Joint Committee on Health. These were deemed the most suitable individuals for inclusion in the study, because of their role in setting policy within the health service. Studies from other countries demonstrated that individuals with expertise in pharmacy are involved in development of policy relating to pharmacy [413, 414, 418, 446].

#### **8.1.4 To identify facilitators and barriers to delivery of health promotion in pharmacy**

When designing studies to identify potential facilitators and barriers to health promotion in pharmacy, it was considered important to explore the issues from a number of perspectives. The focus group study and the stakeholder interviews provided the greatest amount of information on this topic, but the simulated patient study and the feasibility study also provided practical insights. Each of the studies also provided information on factors which facilitated pharmacy based health promotion, as summarised in Table 8-2.

One of the recurring issues identified by each of the studies was the fact that community pharmacy was a potentially ideal setting for health promotion activities. Policy makers, patients, patient representatives and pharmacists all recognised the accessibility and convenience of pharmacy for providing health promotion. Long opening hours, widespread distribution, lack of appointment structure and the fact that they are frequented by both ill and healthy people were issues that were raised repeatedly in this research, as they have been in other studies [13, 41, 43, 235, 253]. Pharmacists highlighted that an increasing number of pharmacies had private consultation areas but this was not recognised by the stakeholders. Both pharmacists and some stakeholders commented on the regularity of contact between patients and pharmacists and felt that this was an important facilitator



of health promotion messages, although in doing so, it was clear that both groups were concentrating on existing patients as target groups.

<b>Research Study</b>	<b>Facilitators</b>
Focus Group Study	<ul style="list-style-type: none"> <li>▪ Large range of interactions with people</li> <li>▪ Opportunities created by the sales of products and services</li> <li>▪ Characteristics of community pharmacy</li> <li>▪ Support in coordinating events</li> <li>▪ Expertise</li> <li>▪ Leaflets and posters</li> <li>▪ Facilities (Such as consultation room)</li> <li>▪ Staffing</li> </ul>
Stakeholder interviews	<ul style="list-style-type: none"> <li>▪ Characteristics of community pharmacy</li> <li>▪ Pharmacist expertise</li> <li>▪ Increased pressure on the health service</li> <li>▪ Proactive approach by pharmacists</li> <li>▪ Research and/or evidence</li> </ul>
Simulated patient study	<ul style="list-style-type: none"> <li>▪ Information tailored to the patient</li> <li>▪ Coordinated programme</li> <li>▪ Commitment of the pharmacy staff</li> <li>▪ Pharmacy setting</li> <li>▪ Co-operation with dieticians and gym</li> </ul>
Feasibility study	<ul style="list-style-type: none"> <li>▪ Coordinated programme</li> <li>▪ Materials and resources</li> <li>▪ Training</li> <li>▪ Pharmacy location and opening hours</li> <li>▪ Dietician input</li> <li>▪ Facilities (space, consultation room, equipment)</li> </ul>

**Table 8-2 Summary of the facilitators which were identified by the each study**

The issue of support for coordination of health promotion activities was raised in the focus groups and in the feasibility study. Some pharmacists explained that they didn't have the time or expertise to develop materials for specific events and therefore found it easier to engage in specific health promotion when it was coordinated by an outside body. This explained why so many relied on pharmaceutical companies and patient care organisations to coordinate events in their shops, as evidenced in the focus groups and in the literature review. In the simulated patient study it was evident that any written information which was provided by pharmacists was predominately promotional material. This need for coordination was not recognised by stakeholders, but the feasibility study demonstrated that it was an important factor in programme implementation.

Pharmacists felt that the sale of products and services within the shops created opportunities for health promotion. Many identified how the sale of these products made it possible to discuss issues with customers that would otherwise be difficult to broach. This aspect was not recognised by other stakeholders, who generally saw product sales as a detractor from the professional status of the pharmacist.

Pharmacists also recognised that benefit of pharmacy staff being involved in health promotion interventions. Many identified how pharmacy cover allowed them time to concentrate on health promotion, but also identified how non-pharmacist staff developed relationships with customers. Again, this was not recognised by external stakeholder, who generally saw non-pharmacist staff as unqualified to provide advice. In the simulated patient study, there was no noticeable difference between the interactions which were facilitated by pharmacist and non-pharmacist staff.

Policy makers identified a number of additional facilitators which were not identified by pharmacists. They felt that the strain on other areas of the health service could work to the advantage of pharmacy. Although the pressure on the health service was briefly discussed by pharmacists, it was not identified as a factor which would help develop the area of pharmacy based health promotion for pharmacists. Stakeholders felt that a proactive approach by pharmacists to develop service and influence policy makers would be a significant facilitator for the development of health promotion services. Pharmacists, on the other hand, felt that they were already adopting a proactive approach to health promotion, and did not feel that this was recognised by the stakeholders.

The main barriers which were identified in each study are listed in Table 8-3. Many of the barriers identified were common to both the focus group study and the semi-structured interviews, although some were discussed in slightly different ways.

Both studies identified that the general public were not aware of the potential for pharmacists to provide health promotion advice. In the focus groups pharmacists felt that people who were healthy did not understand the role of the pharmacist because they had not experienced interactions with the pharmacist but they felt that people who experienced ill health were likely to have a greater appreciation for pharmacists as healthcare professionals. The stakeholder interviews did not support this assertion. Most of the stakeholders felt that the lack of awareness of pharmacists as health promoters amongst the



general public was due to the commercial nature of pharmacy shops and the fact that pharmacists were often not seen by patients. Many described how they perceived pharmacists to be “hidden” in the dispensary, and even those who collected medication on a regular basis from pharmacies said that they generally had very little interaction with pharmacists. Many of the stakeholders felt that if pharmacists wanted to change public perceptions, they needed to change their own behaviours and in particular, they needed to interact with patients in a more proactive way in order to establish themselves as healthcare professionals.

<b>Research Study</b>	<b>Barriers</b>
Focus Group Study	<ul style="list-style-type: none"> <li>▪ Lack of recognition by stakeholders of pharmacists role in health promotion (including low customer expectations)</li> <li>▪ Structure of pharmacy reimbursement</li> <li>▪ Relationships with other healthcare professionals</li> <li>▪ Commercial conflict</li> <li>▪ Time</li> <li>▪ Policy</li> <li>▪ Inconsistent standards within the profession</li> <li>▪ Pharmacist training &amp; confidence</li> </ul>
Stakeholder interviews	<ul style="list-style-type: none"> <li>▪ Commercial conflict</li> <li>▪ Lack of research or evidence</li> <li>▪ Policy</li> <li>▪ Structure of pharmacy reimbursement</li> <li>▪ The nature of pharmacist interactions with patients</li> <li>▪ Contractual and regulatory issues</li> <li>▪ Low customer expectation of pharmacy</li> <li>▪ Relationships with other healthcare professionals</li> </ul>
Simulated patient study	<ul style="list-style-type: none"> <li>▪ The nature of interactions with patients (specifically lack of questioning and the provision of general advice rather than motivating behaviour change)</li> </ul>
Feasibility study	<ul style="list-style-type: none"> <li>▪ Time/Staffing</li> </ul>

**Table 8-3 Summary of the barriers which were identified by the each study**

The issue of remuneration was identified as another barrier by this research. Policy makers indicated that it was unlikely that any funding would be made available for pharmacy based health promotion initiatives. In fact, rather than funding additional services, they felt that efforts would be made to reduce existing payments to pharmacists. Many of the pharmacists in the focus groups were aware of these intentions, and felt that reductions in payments would reduce the ability of pharmacists to maintain the current low levels of health promotion activity. Although they stated that they did not expect to generate profit from health promotion services, pharmacists felt that it was unfair that they were expected to incur financial loss. One pharmacist described how providing a DUMP scheme was

incurring significant cost in terms of waste disposal. It was predicted that such loss making initiatives would be untenable if payments to pharmacists were reduced. Although the issue of remuneration has been raised as a barrier in many studies [17, 40, 41, 43, 45, 50, 51, 234, 235, 255-258], this research indicated that the nature of the barrier in Ireland was different to other countries. Whilst other studies have demonstrated that remuneration was inadequate, this research suggested that there is a complete lack of financial support for pharmacy based health promotion initiatives. The piecemeal way in which the research for this thesis was funded typifies the current funding situation for pharmacy practice research in Ireland. The researcher's postgraduate fees were covered by her employer, and the research was conducted in the researcher's personal time. No funds were available to conduct the research studies, and therefore costs needed to be kept to a minimum. Any costs which were incurred were covered in a variety of way – by Boots, by the School of Pharmacy and Pharmaceutical Sciences in Trinity, by the researcher and by securing services which was provided free of charge, such that provided by the simulated patients, focus group moderators, the participating gym and HSE dieticians.

It was clear from both the focus groups and the interviews that the issue of remuneration was closely linked with contractual issues, but with diametrically opposed views being represented by both studies. Policy makers felt that health promotion would not be possible without significant changes to the contract, as they felt health promotion was unlikely to be developed under a contract which operated on a “fee per item dispensed” basis. Whilst pharmacists agreed that the “fee per item” structure was not conducive to health promotion and that a different structure was needed, most predicted that a new contract would not incorporate payments for services. Instead they feared that any new contract would focus on reducing existing payments to pharmacists, which would make it difficult for them to provide health promotion services which incurred a financial loss. The movements by the government in 2008 to cut payments to pharmacists and to introduce an interim contract suggested that pharmacists' fears were well founded.

The issues of remuneration and contractual arrangements were both closely lined to policy issues, and it was obvious through most of the studies that there was a lack of government policy relating to pharmacy based health promotion. Any policy documents or reports commissioned by the government in relation to pharmacy concentrated on payment issues and increasing competition [89, 448]. The programme for government did not include any references to pharmacy [436] and the HSE National Plans only mentioned it in the context



of plans to renegotiate contracts to achieve a reduction in payments to pharmacists [260, 261]. Recommendations have been made by the profession at various points, for example through the Report of the Commission of Inquiry into Pharmacy in 1990 [98] or through a strategy for the development of services within pharmacies [421], but these recommendations have not been adopted into policy. With a lack of pharmacy input at a policy making level and the general lack of understanding with regard to the pharmacist's role amongst policy makers, as demonstrated in the stakeholder interviews, it is unlikely that any new policies in this regard are imminent.

The commercial role of the pharmacist was raised by stakeholders and pharmacists as a barrier to health promotion, but was discussed in slightly different ways by both groups. Pharmacists expressed concerns about the fact that they were often seen as shopkeepers rather than health care professionals and a number of the employee pharmacists expressed concerns about some of the products which were sold in pharmacies. However, whilst the pharmacists accepted that the commercial environment might impact on how they were viewed externally they did not feel that it compromised their professional practice. A number of pharmacists emphasised that they would frequently dissuade customers from buying products which they did not feel were evidence based, with some stating that this honesty improved trust between them and their customers. This was validated by the simulated patient study. This aspect of the pharmacist's role was not understood by stakeholders, who generally felt that the commercial role caused the professional role to be compromised. The sale of non-medicinal items, combined with a lack of interaction between pharmacists and customers, diminished the healthcare professional status of pharmacists in the eyes of the stakeholders.

The conflict between professional practice and business in pharmacy is not unique to Ireland. In America, Vitell et al. [449] suggested that, as pharmacists have become over-educated and under-utilised, many have replaced professional functions with business pursuits. Resnik et al. [450] described how the pharmacy landscape has changed in the US, where locally owned and operated pharmacies have given way to national pharmacy chains, mail order pharmacies, drive-through pharmacies and pharmacies aligned with discount stores. The authors suggested that if such pharmacy organisations placed undue emphasis on the "bottom line", pharmacists could find themselves compromised in the quality of care that they provide to their patients. In Ireland new legislation has made efforts to address this issue, by introducing regulations for the regulation of pharmacy

businesses [451]. However Resnik et al. [450] commented that legislation is no substitute for moral guidance and argue that the business/professional conflict is best solved through additional moral education and moral persuasion.

The issue of inter-professional relationships was raised as a significant barrier by policy makers, patient representatives and pharmacists. Pharmacists felt that GPs would not react favourably to their involvement in health promotion and said that they also found it difficult to form working relationships with other healthcare professionals such as dieticians. The stakeholders also indicated that they would like to see greater collaboration and communication between pharmacists and other healthcare professionals. They felt that pharmacists should be more proactive in this regard, particularly in their involvement in multi-disciplinary committees or teams. However, part of the difficulty in developing inter-professional initiatives in Ireland is due to the lack of any formal processes of communication or co-operation within the primary care network or between the primary care network and the primary care team. Although pharmacists can engage with other healthcare professionals in a pro-active manner, this is, by necessity, done on an informal basis and is very much dependent on the individuals involved. A more formal process by which pharmacists can liaise with other healthcare professionals would be preferable. The difficulties presented by the absence of official communication processes within the primary care network did not seem to be appreciated by the policy makers.

As can be seen from the discussion thus far, many similarities were seen in the barriers which were identified by the stakeholder interviews and by the focus groups. However some conflicting views were also observed in the studies. Pharmacists were concerned that they did not have adequate time to facilitate health promotion interventions due to their other workload. They described how tasks such as dispensing and paper work precluded them from spending time with patients. In contrast, stakeholders did not perceive this as a barrier, with many indicating that pharmacists would have more time than GPs or other healthcare professionals. However, the issue of time was found to be the most significant barrier in the feasibility study, with pharmacists saying that they could not leave the dispensary to spend time in consultations with patients. Part of this difficulty arose from the legal obligation for pharmacists to supervise dispensing. This did not seem to be understood or appreciated by other stakeholders. One patient representative suggested that pharmacists should spend all of their time on the shop floor, where they would be available for consultations with customers. When this stakeholder was asked how such a pharmacist



could oversee dispensing, it was suggested that a second pharmacist should be employed so that one could oversee dispensing and the other could provide health promotion advice. This statement demonstrated a lack of appreciation for the considerable cost that such an arrangement would incur, and indicated a belief that pharmacists could not simultaneously oversee dispensing activities and provide health promotion advice.

In the focus group study pharmacists expressed concern about inconsistent standards within the profession. The comparison was drawn between a pharmacist who invested in health promotion for the good of his/her customers and a pharmacist who did not make such investments and was focussed instead on the sale of products. The pharmacists believed that that these consistencies were driven by competitive forces. It was generally felt that a consistent approach by all pharmacies would be preferable in providing a consistent message to the public. Stakeholders did not directly refer to inconsistent standards. This may have been because it wasn't considered an issue, or it may have been that they were not prepared to make such a statement when the interviewee was a pharmacist. However the simulated patient study suggested that the pharmacists concerns were legitimate, as there was considerable inter-pharmacy, and indeed intra-pharmacy variation in how patient requests for advice were handled.

Stakeholders did not express any concern about pharmacist training or confidence in delivering health promotion, issues which pharmacists felt could act as barriers to their health promotion role. On the contrary, stakeholders generally felt that pharmacists were qualified to deliver health promotion messages. Some did highlight that new skills would need to be acquired before new services were developed but this was not perceived as a barrier to involvement.

The way in which pharmacists communicated with patients was also perceived as a barrier by stakeholders. It was generally felt that pharmacists did not engage in health promoting conversations with patients as part of their day to day practice. Although it did not emerge as a main theme from the focus groups, some pharmacists did express concerns about initiating conversations with customers who were not directly seeking advice. Many said that they were afraid of broaching health promotion topics with patients for fear of causing insult. However the simulated patient study demonstrated that when a patient directly sought advice for weight control, pharmacy staff generally did not engage in productive consultations, even though the pharmacist surveys indicated that pharmacists would

engage in discussions regarding lifestyle. This indicated that methods of communication employed by pharmacists, rather than knowledge, may act as a barrier to health promotion.

In the case of pharmacists and policy makers, it was interesting to note that each group felt that the other acted as a barrier to the development of the pharmacist's role. Pharmacists felt that policy makers prevented pharmacists from increasing their involvement in health promotion through lack of recognition of their healthcare role and lack of engagement when developing policy. In contrast, policy makers felt that pharmacists should be more proactive in engaging with policy makers regarding professional issues and felt that pharmacists themselves acted as barriers to the health promotion role due to their lack of interaction with patients. Similarly pharmacists felt that their role in health promotion was diminished by the fact that the general public did not recognise them as healthcare professionals, whilst the patient representatives felt that this lack of appreciation amongst customers was as a result of the behaviours demonstrated by pharmacists. The patient representatives felt that this could be addressed by greater professional interaction between pharmacists and customers, with particular emphasis on the need for pharmacists to be available at the "front of the shop" rather than based in the dispensary, away from public contact. The other studies conducted as part of this research suggested that there was some validity to the argument by all parties. A review of policy demonstrated that the development of pharmacy services was largely neglected and that there was an emphasis on reducing pharmacy payments and increasing competition in the sector. The imposed reduction of 8.2% in pharmacy payments in March 2008, without prior negotiation, appeared to validate the pharmacists' claims that policy makers were not interested in developing remuneration models which would allow for the provision of services [254]. At the same time, the results of the simulated patient study validated the claims of the policy makers and patient representatives that pharmacists (or their staff) tended not to interact with patients in a meaningful way.

As discussed in each of the study chapters, the barriers and facilitators to health promotion in pharmacies are similar to those identified by other studies. Barriers of time, remuneration, space, expertise, perception of the general public and policy relating to pharmacy have all been previously identified as issues which need to be considered [17, 40, 41, 43, 45, 50, 51, 160, 234, 235, 255-258, 263, 452-454], but their relevance to the Irish situation has not been previously explored. Although guidelines have been developed in other countries on how the role of community pharmacists in health promotion could be



increased, these can not always be applied to the Irish situation. For example in guidance developed by Anderson there were many references to the role of Health Authorities in developing training, accrediting programmes and providing funding for pharmacy services [266]. Such guidance has limited relevance to the Irish situation, because, as demonstrated in this research, there is an absence of such support structures for pharmacy. Therefore, the findings from the research presented here should be taken into account when considering guidance issued to pharmacists in other countries, so that its relevance to the Irish situation can be understood.

### **8.1.5 To understand the issues to be considered when developing a health promotion interventions within community pharmacy**

The feasibility study demonstrated how a number of barriers could be overcome by the development of a coordinated programme for delivery in the community pharmacy setting. Resources were specifically designed for use in the pharmacy setting, and training was provided to equip staff with the necessary skills to facilitate consultations and to take relevant measurements. This approach led to the successful implementation of a weight control programme, which received positive comments from both the pharmacy team and the participants.

The study highlighted that certain facilities were necessary in order to successfully deliver the programme. Space was required to facilitate consultations and for storage of patient files. Validated equipment was necessary to facilitate measurements of weight, height and blood pressure. The main difficulty encountered was the issue of pharmacist time. Providing the programme for twenty patients simultaneously was considered difficult and smaller numbers were suggested in any subsequent roll-out. Future studies may need to consider the use of non-pharmacist staff in facilitating such a programme. The issue of cost was not raised as a concern in the study because the pharmacy funded the programme, and gym membership was provided free of charge by the participating gym. However, these funding arrangements would not be realistic in a more widespread programme. The average cost for facilitating the programme was €327 per patient (including printing costs and gym membership). If the feasibility study were to be expanded, funding issues would need to be considered.

The feasibility study demonstrated that, through the development of a programme which was tailored to the pharmacy environment, pharmacists successfully supported participants to make lifestyle changes and achieve weight loss. Participants in the study confirmed the

acceptability of community pharmacy as a location for the programme due to its accessibility and due to the relationships that they developed with the pharmacy team during the programme. Although the issues of time and funding need to be considered in future studies this study demonstrated the many barriers could be overcome through the use of a programme specifically developed for the community pharmacy setting.

### **8.1.6 To consider weight control as a specific topic for health promotion in the community pharmacy environment**

The issue of weight control was considered by all studies undertaken in this research. Before this research was commenced, obesity had been highlighted by the government as an issue which needed to be addressed [185]. The SLÁN surveys of 1998 and 2003 had indicated that the proportion of the population who were over weight had increased from 42% to 48% and the 2007 SLÁN survey indicated that this percentage had increased to 50% [427]. Suggestions had been made that community pharmacy was a setting in which such an issue could be addressed [186-188] but there was little evidence to support this assertion [400]. In a survey of 310 pharmacists in Ireland Mc Entee found that the majority (92%) felt that there was a role for pharmacists in assisting in weight reduction [167] but identified barriers such as lack of time (55%), lack of interest by the public (40%) and cost (19%).

Although the literature emphasised the benefits of pharmacy due to the “walk in nature of the service”, pharmacists in the focus groups stated that they felt uncomfortable in proactively raising the issue of weight control with individuals and felt more comfortable raising the issue with patients who were receiving medication for pre-existing conditions such as hypertension, obesity, hypercholesterolaemia and diabetes. This underlined the emphasis of pharmacists on secondary and tertiary approaches to health promotion. They felt that the sale of weight control products in pharmacies allowed them to initiate conversations regarding weight control, but some stated that they did not agree with the sale of such products. A number of pharmacists described how they had facilitated Very Low Calorie Diet programmes, which had resulted in successful weight loss for customers. This supported the more general finding that health promotion was often product led. However pharmacists explained that in addition to the product associated with such diets, pharmacists received support from the company for delivery of the programme, which helped them to feel more confident in facilitating patient consultations. When asked for ideas on how pharmacists could develop health promotion activity in the area of weight loss, most concentrated on providing information on exercise and diet.



The simulated patient study demonstrated current practice within pharmacies in response to requests for advice on weight control. The findings of this study did not support the claims made in the focus groups that pharmacists provided health promotion advice to customers who requested advice in this area, but did validate the comments that some pharmacists dissuaded patients from buying weight control products. The simulated patient study demonstrated that pharmacists tended to provide information rather than facilitate conversations about current habits and lifestyle with patients and that both pharmacists and non-pharmacists facilitated consultations.

In the semi-structured interviews, policy makers and patient representatives stated that all healthcare professionals should be involved in the area of weight control and that pharmacy should be no different, but they did not have any clear idea as to how this should be progressed. Some were critical of the products such as diabetic chocolate and weight control products, including very low calorie diets, which were stocked in pharmacies and felt that these compromised the pharmacist's ability to counsel patients regarding weight control.

Despite the concerns raised in the focus groups, interviews and simulated patient studies, the pilot study demonstrated that a weight control programme could be developed, implemented and evaluated within pharmacy and could result in successful weight loss for patients. Regular patient-centred discussions were facilitated in the pharmacy setting and inter-professional relationships were established. The programme was well received by participants who generally approved of the pharmacy setting for such a programme.

Since this work has been carried out there has been an increased discussion about pharmacists' role in this area. In Australia, Rieck et al conducted a review to identify the potential role of community pharmacists in weight management in Australia [269]. They found that the majority of weight management programmes in community pharmacy were product related, typically involving strategies to reduce energy intake by limiting fat or overall calorie/carbohydrate intake. Whilst lifestyle factors were raised and addressed, this was primarily to augment the associated weight management product. They identified a number of barriers which prevented further involvement in this area, including the following: remuneration; workload/time constraints and workforce shortages; accreditation, support and training; facilities and staffing; ethical barriers; other capability

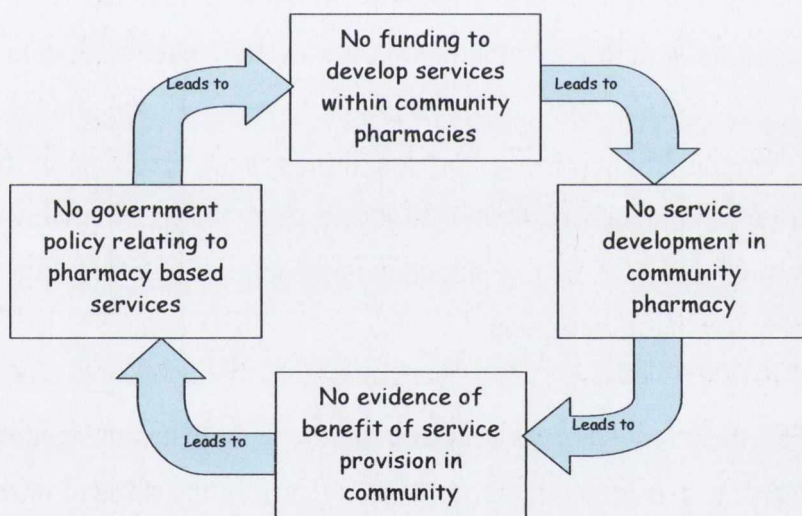
issues, including legal and ethical issues; and client recruitment. The main facilitators identified were trustworthiness and convenience; knowledge and skills of pharmacists; opportunity to raise weight issues with clients; professional relationships and boundaries. These issues were similar to those raised by the research conducted for this thesis.

## **8.2 General Discussion**

The purpose of this research was to explore the concept of health promotion in Ireland, with a view to understanding how the area might be progressed. The findings suggest that there is potential to develop the role of the pharmacist in health promotion in Ireland. However there are a wide range of factors that needed to be considered in order to achieve this. Whilst most of the individual factors which were identified in these studies have been previously identified by other international studies, their cumulative impact on the development of health promotion in Ireland has not previously been considered. Most Irish studies of health promotion in pharmacy have been limited in scope and a systematic evaluation of relevant factors has not been attempted. This research suggests that a range of actions were needed at a number of levels in order to develop health promotion services in Irish pharmacies. At an individual level, there is a need to develop the competence of pharmacists in the area of health promotion, enabling them to engage in more effective consultations with customers. At a pharmacy level, issues relating to the pharmacy environment including space, staffing and commercial influences need to be considered. Across the profession there is a need for leadership, support (both financial and organisational) and research and there is a need to increase the profile of pharmacy with relevant stakeholders such as patients, policy makers and other healthcare professionals. Within the health service, arrangements are required to facilitate the integration of pharmacy into primary care initiatives and structures for reimbursement of services need to be considered. Finally, at governmental and policy making level there is a need for a strategy to enable pharmacy to contribute to the health promotion agenda.



The difficulty appears to lie in the fact that the issues are complexly interwoven, and that there is no consensus about how change should be achieved. In this research, policy makers felt that evidence was required before policy could be developed and advocated a “bottom up” approach whereby pharmacists would develop an evidence base through practice, which could then be used to lobby for pharmacy policy. Pharmacists, on the other hand felt that a “top down” approach was required, and that policy within the Department of Health and Children and the HSE was necessary to enable a coordinated approach to health promotion. The result is a vicious cycle of inactivity. The lack of policy relating to the development of pharmacy services, and the resultant lack of support (either in terms of remuneration or coordination support) leads to a lack of coordinated health promotion initiatives within pharmacies. This results in a lack of evidence, which in turn makes it difficult to influence the development of policy [455] (See Figure 7-1).



**Figure 7.1: Representation of the vicious cycle relating to development of pharmacist health promotion services**

Policy makers and patient representatives clearly felt that the responsibility lay with pharmacists to demonstrate the benefit of their involvement in health promotion, but did not appreciate that this was difficult for pharmacists to do in their current environment. At the same time pharmacists believed that they were doing as much as they could without any support and that their hands were tied until their role was recognised by patients, policy makers and other healthcare professionals. They did not appreciate the extent to which their current behaviours, particularly their lack of visibility in the pharmacy and lack of interaction with patients, affected the way in which they were viewed by these

stakeholder groups. This suggested that the most significant barrier to the development of health promotion in pharmacy was the fact that all stakeholders, including pharmacists, felt that the responsibility lay with someone else to progress this issue and did not recognise how their behaviours were perpetuating the vicious cycle.

The findings of this thesis are similar to the findings of UK researchers over 15 years ago [17, 40, 41, 43, 45, 50, 51, 234, 235, 255, 258, 454]. In the early 1990s Maguire expressed an opinion that the British government was ambivalent to the extension of the pharmacist's traditional role and seemed reluctant to assign monies to pay for it [445]. He claimed that until such time as health promotion was included in the pharmacy contract, community pharmacists would only play a minor role, to the detriment of the profession of pharmacy and the health of the general public. Anderson [234] drew similar conclusions from her research, stating that unless there was a change in pharmacy contract, the problem of commercialism versus professionalism would continue to exist within pharmacy and would constrain pharmacist's activities in health promotion. Since then there has been significant advances, and recognition of the role of the pharmacist in the United Kingdom is evident from the many policy documents that have been produced relating to pharmacy [456-462] and the fact that the community pharmacy contractual framework provides for the delivery of essential, advanced and enhanced services by pharmacists [431]. A review of the UK situation could provide some ideas for potential approaches to developing the health promotion role of the pharmacist in Ireland.

Anderson [264] described how the development of the public health agenda in Great Britain was the result of a state recognition of the need to utilise the skills of pharmacists in public health activities combined with the profession's recognition of the importance of developing the pharmacist's role. A review of literature demonstrates that role of the pharmacist in the UK has been developed through multiple approaches, including the commissioning of independent reports [463], funding research initiatives [40, 41], publishing guidance documents [266] commissioning reviews of practice [10-12, 447] and establishing joint working parties with the Department of Health [464]. Schemes such as Healthcare in the High Street [41] and the Barnet High Street Health Scheme [40] are examples of where funding was provided by Family Health Services Authorities to establish and evaluate pharmacy based health promotion interventions. An evaluation of the Healthcare in the High Street scheme demonstrated benefit of pharmacist involvement in health promotion and resulted in government funding to support the distribution of



leaflets through pharmacies. This scheme has since evolved to become PharmacyHealthLink whose purpose is to “*support pharmacists and other professionals to give health information to the public*” and which has raised the profile of pharmacy in the public health domain [259, 465]. The Barnet High Street Health Scheme [234] demonstrated how pharmacist behaviours could be influenced by training. Anderson demonstrated that, following training, pharmacists were more proactive in their health promotion and had moved away from a product orientated role to a more patient orientated role. Trained pharmacists spent less time dispensing medicines and more time talking to and advising patients and appeared to be more likely to consider psychological and social issues when caring for their patients. Not only did the training have an effect on the pharmacists in Barnet, but a survey of pharmaceutical advisers across England demonstrated that a large proportion of the English Family Health Services Authorities had been influenced by the Barnet Scheme. Since then many other health promotion initiatives have been funded by Family Services Health Authorities and by Primary Care Trusts [40, 44, 50, 466, 467] and there has been an increasing emphasis on the use of social and behavioural science research methods which have enhanced the development of pharmacy practice research [468, 469]. More recently a number of peer-reviewed and non-peer reviewed literature reviews have been conducted in the UK to provide service commissioners with evidence of the potential benefit of community pharmacy services [10-12, 400, 447].

These studies have produced evidence and resulted in recommendations regarding the public health role of the pharmacist. The issue has been recognised in government policy and NHS pharmacist remuneration structures have changed from being entirely based on the number of prescriptions dispensed to incorporating models of service delivery. Under the English community pharmacy contractual framework, promotion of healthy lifestyles and involvement in national and local campaigns are now considered essential services to be provided by all pharmacy contractors. Additionally, funding opportunities remain available to pharmacies through Primary Care Trusts, which ensures the development of services which can be evaluated and used to shape policy. The White Paper which was published in 2008, *Pharmacy in England: Building on strengths – delivering the future* [462] demonstrates how the government are seeking to build on the evidence from research and practice to further develop the role of pharmacists in England. This paper describes how the Department of Health will provide more support to pharmacy at a high level including appointing two new clinical directors, providing more support and direction to

PCTs around practice-based commissioning, commissioning research and proposing a national communications programme to raise public awareness of pharmacy services. The relationship between research, practice and policy which is evident in this document demonstrates a “virtuous cycle” of capability enhancement.

Virtuous cycles can be described as chains of influence in which one good outcome promotes another [470]. As commented by De Wit and Meyer in the business context, virtuous cycles do not happen by themselves and design and leaders play a key role. In the UK the health promotion agenda has been jointly led by the profession, by the health service and by policy makers. In Australia the Pharmacy Guild of Australia has facilitated development of the profession by negotiating a contract with the Commonwealth of Australia which incorporates funding for research into the provision of pharmacy-based services [265]. This has greatly enhanced the generation of research and the development guidelines in the area of pharmacy practice. For example, a national database of activities in community pharmacy has been developed [268, 471], comprehensive reviews have been conducted of pharmacist involvement in screening and weight management [242, 269] and a comprehensive programme of change management has been developed [267, 472].

The results of the research presented here suggest that multiple actions are required to develop health promotion in Ireland. Training is needed for pharmacy teams to develop a range of competencies relating to public health. Coordination support is needed to establish consistent approaches to health promotion across the profession. Public awareness campaigns are required to increase the profile pharmacists as healthcare professionals, not just with the general public, but with other stakeholders. Consideration needs to be given to how the professional and commercial dichotomy of community pharmacies can be managed. Research is needed, with greater use of social science approaches. Reimbursement structures for pharmacists need to be considered, preferably in the context of a new contract. Policy relating to pharmacy needs to move away from issues such as increasing competition and imposing pay-cuts and instead needs to focus on how community pharmacies can be used to deliver value within the health service. Processes for involving pharmacists, and other privately funded healthcare professionals, in policy making processes need to be established within the Department of Health. Finally, structures need to be established which will allow pharmacists to collaborate with other healthcare professionals in the primary care team and network within the HSE.



This research indicates no one action alone which will lead to enhanced recognition of the role of pharmacists in health promotion in Ireland. Although individual programmes, such as the feasibility study presented here, may demonstrate potential, issues such as funding, the lack of policy relating to pharmacy, the lack of communication structures within the primary care network, the nature of the pharmacy contract and general perceptions of pharmacy will continue to represent significant challenges. Similarly, although documents such as that produced by the Pharmacy Ireland 2020 working group are useful in providing suggestions for the future of the profession, they will not be progressed without government support and considerable investment in the pharmacy sector.

One of the fundamental barriers to achieving coordinated action is the fact that no organisation has responsibility for developing the professional agenda in pharmacy [473]. As a result of the Pharmacy Act 2007 [474], the primary role of the Pharmaceutical Society is as a Regulator of the profession. Whilst the IPU have made efforts to support nationwide health promotion campaigns in community pharmacies their role is essentially that of a Trade Union, with a primary purpose of protecting members' economic interests. Consequently, their involvement in professional issues is regarded with an element of scepticism (as demonstrated in the semi-structured interviews). Likewise, there is no unit within the Department of Health or the HSE with a purpose of developing the pharmacy profession, but rather, efforts are focussed on reducing the cost base of pharmacy. Therefore the profession appears to be leaderless with regard to development of professional services. This contrasts with Northern Ireland, Scotland, England and Wales. Without clear leadership within the profession, it is unlikely that the current situation in Ireland can be changed.

One of the encouraging findings of this research is that positive attitudes were expressed by all stakeholders. Patient representatives indicated that once there was evidence of patient benefit from services, they would champion their cause with policy makers. Policy makers indicated that if there was evidence of patient benefit from pharmacy services, this would facilitate realignment of healthcare policy. Pharmacists indicated their willingness to increase involvement in health promotion if their role was recognised and supported in terms of remuneration or coordination support. All three groups (policy makers, patient representatives and pharmacists) stated that they would support the development of health promotion in pharmacy once change was initiated by other stakeholders. The question raised by this research is how can the current cycle of activity be broken to initiate a new

cycle which would allow the health promotion role of pharmacists to be developed? As described by Dunphy et al. [267] no one action will suffice, but a programme of strategic change management is required.

### **8.3 Critique of Methods Used**

When this research was commenced there was relatively little evidence of health promotion research in Ireland. Any research which had been done had generally used small scale intervention studies and survey instruments, although there were some examples of observational studies. Methodologies which have not previously been used in pharmacy practice research in Ireland were employed in this research to explore the factors affecting health promotion in the Irish context.

A study of health promotion within community pharmacy would not have been complete without ascertaining the views of practicing pharmacists on the topic. Focus groups are commonly used in exploratory studies to ascertain views and attitudes. An important feature is the interaction among participants, as this generates a wider range of ideas and issues than individual interviews. In each of the focus groups that were conducted as part of this research, there were frequent interaction and dialogue between the participants which helped the conversation to develop and evolve. This was deemed the most appropriate method by which to initially explore the research topic. There is no published or unpublished evidence of any previous studies using focus groups in pharmacy practice research in Ireland, and therefore this work is the first to employ this methodology in this setting.

Semi-structured interviews were considered the most appropriate method by which to elicit the views of pharmacy stakeholders. Focus groups were not used in this case because the anticipated difficulty in securing appointments with some of the participants would make organisation of group interviews difficult. Also, since each of the stakeholders were responsible for the production and dissemination of their organisation's internal policy, and since they were regularly interacting with each other in fulfilling their responsibilities, such an approach would have been likely to inhibit participants' ability to speak frankly. Many expressed concerns about having their interviews recorded and therefore would have been uncomfortable in expressing their true beliefs in a group situation. Also, the various roles of the individuals would have resulted in a heterogeneous group which would potentially reduce the effectiveness of a group discussion [202]. No previous attempt has been made



to investigate attitudes of policy makers to pharmacy in Ireland and therefore this research provides new insights into this area

The combination of the simulated patient study with a survey instrument allowed the patient experience to be considered from two perspectives. Although the study was small and the survey instrument was not validated, these characteristics would be typical of many of the research surveys conducted in this area in the past. The study suggested that surveys were not an effective method of obtaining information on the reality of the patient experience and demonstrated the limitation of much of the previously conducted research which depended on this methodology. The simulated patient study provided a useful insight into the patient experience and is the first use of this method as a research tool in pharmacy practice in Ireland.

The feasibility study was conducted to assess how a weight control intervention might be run in a pharmacy. Although the study was confined to one pharmacy, it provided valuable information, such as estimates of the time required for such a programme, the associated costs and the practicality of using certain outcome measures. These issues, particularly those relating to costs, are rarely reported in intervention studies, and can be used in the development of larger scale studies. This feasibility study demonstrated that the issue of weight control could be successfully addressed in community pharmacy and can be used to inform the development of a larger study.

The complete research design involved the triangulation of results from each of these studies. Triangulation can be defended in this research because, rather than focusing on a single specific research question, multiple methods were used to explore several aspects of the area in a "rounded and multi-faceted way" [231]. Thus, each study addressed different but complementary research questions. This provided a more comprehensive exploration of the area of health promotion in pharmacy than could have been achieved by the use of any single approach. Conflict of underlying research philosophies was avoided by triangulation of data rather than methods and by using results to build a cumulative picture of the area, rather than as a means of cross-validation between separate studies. The fact that there was considerable overlap between results from separate studies did suggest a high level of internal validity in each of the studies.

To conclude, the methods used in this research were appropriate for the exploration of the area of health promotion in pharmacy in Ireland and represented a departure from the quantitative approaches which have been used previously. Harding and Taylor [475] emphasised the importance of both qualitative and quantitative research studies and cautioned against rating studies against hierarchies of evidence – where randomised controlled trials are seen as the gold standard and qualitative studies are often viewed as having a supportive role. The qualitative approach which was adopted in this thesis was necessary to ascertain the range of issues relating to health promotion and further qualitative work is required, particularly in ascertaining views amongst the general public and other key stakeholder groups, such as other healthcare professionals and leaders of the pharmacy profession. Once this work is complete, a quantitative approach will be required to ascertain the relative importance of the issues which have been raised in the qualitative studies.

### **8.3.1 Limitations**

The greatest limitations experienced during this research were the availability of funding and time. Because of the lack of funding, the studies were, by necessity, small in scale and restricted in scope. The work conducted in this research did not fall within the scope of the researcher's day-to-day work, and therefore most of the studies were carried out in the researcher's personal time. Consequently some of the studies were extended over a longer period of time than they would have been if the research was undertaken in a full-time capacity. In particular, the focus groups and the semi-structured interviews were conducted over a longer period of time than would have been otherwise desirable, and there was a time-lag between the survey and the patient visits in the simulated patient study which limited the degree to which the results could be compared.

All of the studies (with the exception of some of the focus groups) were conducted in the greater Dublin area and therefore the results may not be representative of practice throughout the country. The themes raised in the rural focus group were similar to those raised in the urban focus groups, indicating that there may not be much difference between rural and urban pharmacies. However, the rural group was conducted in the Leinster region (same province as Dublin) and studies across the other provinces might highlight different issues, particularly in more rural areas.



The use of qualitative methods in this research was appropriate due to the explorative nature of the research. However, there are some inherent limitations associated with qualitative methods that need to be considered, particularly in relation to the potential for subjectivity in the interpretation of results. The risk of subjectivity was minimised by adopting a systematic approach to the research, by employing double coding systems for qualitative analysis and by presenting the results to other researchers and seeking their interpretation of the data. The high level of consistency in results between the studies suggested that this approach was successful in minimising the impact of subjectivity. Another limitation of qualitative research is that although it is useful in gaining a greater understanding of the issues that need to be considered, it does not generally provide information on relative importance of these issues or indeed if such issues are generalisable. Therefore, although this research identified a range of issues that need to be considered in order to develop pharmacy based health promotion in Ireland, it does nothing to identify which issues are most important [476]. However, the findings from this research could be used to develop quantitative approaches which would be more likely to allow for prioritisation of issues.

Despite the varied nature of the research, there are still areas that have not been explored. The views of locum pharmacists have not been examined as locums chose not to participate in the focus groups, and the views of owners of chain pharmacies have also been omitted, primarily due to the sampling method used. The attitudes of these groups need to be considered, as they play important roles within pharmacy. Similarly, very little attention has been given to the role of pharmacy assistants in this research. Given the level of interaction that this population has with the general public, it is important that their role be considered when developing pharmacy services and this should be considered in future studies. The views of a wider range of stakeholders such as other healthcare professionals, leaders of the pharmacy profession and managers of health promotion units within the HSE should also be sought in future studies.

As discussed in the previous section, triangulation of results from different research methods must be used with caution, as each method provided information from different perspectives. The focus groups and interviews provided opinions from pharmacists, patient representatives and policy makers regarding the perceived issues relating to health promotion in pharmacy whilst the simulated patient and pilot study concentrated on practical barriers which were encountered from two different perspectives (patients and

pharmacists). Although none of the studies have yielded results which, by themselves, could be considered to be generally representative, collectively, through triangulation, they provide a rounded view of the Irish situation.

#### **8.4 The Changing Landscape during the Lifetime of this Research**

When this research was begun, considerable changes were imminent within the health service and within pharmacy. This section reviews the changes that have occurred in the last three years and considers the findings from this research in the context of those changes.

In June 2005 a Chief Executive Officer was appointed to the HSE, thus establishing the new Health Service to deliver health services as a unified system. The Department of Health and Children subsequently underwent reform in 2006. Its new function was to monitor the HSE in the provision of services (to ensure that they were in accordance with Government policy), and for the development of the overall policy framework within which services were provided. The Health Information and Quality Authority (HIQA) was established in 2007 [477] with responsibility for driving quality and safety in Ireland's health and social care services [478]. The establishment of HIQA marked the completion of the reformed health system, in which the key bodies were the HSE, HIQA and the restructured Department of Health and Children.

In terms of health promotion, responsibility for the delivery of health promotion was transferred to the HSE under Population Health whilst policy development was retained in the Health Promotion Policy Unit within the Department of Health, thus breaking the link between health promotion policy and implementation. As described by some of the policy makers in the semi-structured interviews, this meant that although Health Promotion Policy Unit could make recommendations on the development of Health Promotion initiatives, they had no means by which to ensure that their recommendations were carried out by the HSE. The emphasis on health promotion appeared to be greatly reduced from what it had been up to 2005. The second health promotion strategy [77] expired in 2005, but no subsequent strategy was developed. Although the Obesity taskforce published its recommendations in 2005, this was never developed into a strategy, and there appeared to be little attempt to implement the taskforce's suggestions, despite the fact that funding of



€3 million was provided to the HSE to support the implementation of the Report's recommendations. Some of this money was invested in the development of a National Nutrition Policy which was due to be launched in September 2007 [479]. However, this policy had not yet been published by March 2009.

The results of the third SLÁN (Survey of Lifestyle Attitudes and Nutrition) study were published in 2007 [427]. Again, pharmacists were not listed as an option amongst the health professionals from whom people received health advice. Three-quarters of respondents (74%) had visited a general practitioner (GP) in the past year, just over half (52%) had attended a dentist, while 9% had attended a complementary or alternative medicine practitioner. The survey demonstrated that the number of people who reported being overweight increased, highlighting the importance of considering weight control interventions.

Within pharmacy, the most significant development in the past three years was the establishment of the Pharmacy Act 2007 [474]. This legislation, which represented a major and complete overhaul of the regulation of pharmacy in Ireland for the first time in 130 years, introduced many new concepts. Under the Pharmacy Bill the old Pharmaceutical Society was abolished and a new one was established, the council of which included a majority of lay representatives (11 of the 21 members) [480]. In this process the functions of the old Pharmaceutical Society such as representation and leadership of the profession were replaced by a primarily regulatory function in the new Society [474]. Legislation which has been introduced has concentrated on the establishment of the Pharmaceutical Society [481, 482], registration of pharmacists and pharmacies [451, 482], education and training of pharmacists [483] and development of a code of conduct [484].

The Pharmacy Act also stated that it was "*the duty of the Society to give the Minister such information and advice about such matters relating to its functions as the minister may call for*". To this end, the Society commissioned a review of Pharmacy Services in Ireland. An interim report was published in April 2008, which made recommendations for the future development of pharmacy services, and this was presented to the Minister for Health and Children. The report recommended increased involvement by pharmacists in a number of areas including chronic disease management, drug safety, pharmaceutical care, medicine management, medicine use review, a minor ailments scheme, pharmacist prescribing, health screening, and delivery of vaccination programmes. Health promotion

was not specifically mentioned. The report also recommended that a Strategic Policy Advisory Group, representative of all stakeholders, should be appointed by the Minister for Health and Children and that a Resource Implementation Group be appointed to oversee the implementation of any initiatives over the next two to three years, having due regard to the constraints on resources available to the health system. Over a year after the report was published none of its proposals had been progressed, and it appeared that its recommendations were destined to the same fate as those of the Commission of Inquiry into Pharmacy [98] which had been published 18 years previously.

The other significant issue relating to pharmacy in the past three years was the effort by the government to reduce drug spend by reducing payments to pharmacists. This was primarily driven by the Corporate Pharmaceutical Unit, which was established within the HSE corporate structure in April 2006. The purpose of the unit was to evaluate, and where necessary, propose changes to the many schemes that existed in relation to the provision of drugs and devices to patient, with the ultimate aim of rationalising drug spend [485]. In September 2007 the HSE announced that it was imposing an 8.2% reduction in reimbursement to pharmacists for drugs dispensed under the government schemes, effective from the December 2007. Pharmacists claimed that this was in breach of their contract [73] and the December deadline was extended to March 2008 to facilitate negotiations under an independent negotiator. However these negotiations did not result in a resolution and the reduction was implemented in March 2008. There was much backlash from pharmacists, including a day of pharmacy closures and withdrawal of services by some pharmacists [486]. Legal action was taken against the imposed price reduction by one pharmacy chain and in September 2008 the High Court found that the HSE's actions were in breach of its contract with pharmacists [487]. In October 2008, the HSE restored the original mark-up arrangements but indicated that it still wanted to reform the payment system for pharmacists [262]. In the midst of the dispute, an independent group was established by the Minister for Health and Children in February 2008 to recommend a new, interim community pharmacy dispensing fee for the community drug schemes. The group published its recommendations in June 2008 [448]. It commented that the arrangements for reimbursement of pharmacists had developed in a piecemeal way over an extended period and were incurring increasing costs which were not sustainable. They suggested that a change was needed in order to achieve a better model for the provision of community pharmacy services. The group recommended reimbursement structures which could be used as the basis for an interim contract but recommended *that a new contract*



*was required urgently and that parties should move to achieve that.* By March 2009 the recommendations of this group had not yet been implemented. The HSE's National Service Plan for 2009 indicated that it was planned to "finalise contractual arrangements" in relation to pharmacy during that year [260].

In terms of pharmacy based health promotion, activities in the past three years have been similar to how they were when this research started. The IPU increased the extent to which it coordinated health promotion campaigns and established an annual schedule for information campaigns incorporating between three and four events per year. These events focused on diabetes, smoking and blood pressure in 2006, pain relief and minor ailments in 2007 and asthma, travel medicines, sexual health and drug awareness in 2008 [488]. The initiatives were supported by patient support groups and by the pharmaceutical industry.

In terms of research, efforts were made by the Society to provide funding for practice research in 2006 by making €30,000 available for research projects. [489]. These funds were divided between three projects: Development of a national database of hospital prescribed extemporaneous preparations to facilitate seamless pharmaceutical care; Use and abuse of over-the-counter medicines containing codeine in Ireland; and Pharmacy services at the primary-secondary care interface. No funding was allocated to health promotion, as it was "*not a priority for funding from the limited resources available*" [490].

Evidence of research in the area of pharmacy based health promotion has remained scant. A pre-registration project considered the impact of a community pharmacy-directed weight management programme on blood pressure findings, with a focus on Very Low Calorie Diets [491]. An evaluation of the DUMP campaign showed that a large proportion of returned drugs corresponded with those commonly associated with suicide [492]. Some research was conducted as part of the Cross Border, Care and Working Together (CAWT) initiative. As part of this research Hunter et al. showed increased use of pharmacist during a pharmacy based health promotion campaign for patients with diabetes [493]. At the same time, evidence of any systematic evaluation of national health promotion programmes has been slight.

Therefore whilst there have been some considerable changes in pharmacy in Ireland during the lifetime of this research, most of the changes have had little impact on the development

of health promotion within pharmacies and would not have been anticipated to have had any effect on the findings of this research. The introduction of a new Pharmacy Act in Ireland may have helped with some of the issues raised in the focus groups, such as development of standards within the profession through fitness to practice provisions and regulations regarding pharmacy facilities [474]. However the fact that the Act defined pharmacies as “retail pharmacy businesses” suggests that there is continued emphasis on the pharmacists’ role as a commercial entity rather than a healthcare professional. Also, the increased requirement for documentation of processes and audit within pharmacies may mean that pharmacists are less likely to invest time in provision of health promotion services [389].

The dispute between the IPU and HSE however may well have had a significant effect on the views of pharmacists, and it is likely that attitudes have become significantly more negative towards policy makers since the focus groups were conducted. The outcomes of the pilot study or the simulated patient study would have been unlikely to have been different as a result of the recent events within the profession.

## **8.5 Conclusion**

This research achieved its aim of exploring the concept of health promotion in community pharmacy in Ireland. The topic was explored from a number of perspectives in order to provide a comprehensive overview.

The extent to which pharmacists were involved in health promotion was varied and efforts generally tended to be uncoordinated and sporadic. Pharmacists reported that they generally tried to deliver health promotion whilst simultaneously undertaking their other roles, such as dispensing or selling over the counter products. Interactions between patients and pharmacy staff appeared to be focused on the provision of information rather than motivating behaviour change. In general, there was very little documentation or evaluation of health promotion interventions by pharmacists.

Pharmacists, policy makers and patients all acknowledged that community pharmacies were suitable settings for such initiatives by virtue of their location, the ease with which they could be accessed and the expertise of pharmacists. All stakeholders expressed positive sentiments about increasing the role of pharmacists in health promotion and the



feasibility study demonstrated that such involvement could result in positive outcomes for patients.

Pharmacists felt that their role in health promotion was restricted by barriers such as time, funding, staffing levels, training and space but described how they overcame these issues by availing of support provided by pharmaceutical companies and patient advocacy groups and by investing their own time and money into developing services within their pharmacies. In contrast, issues such as perceptions of the general public, lack of remuneration, lack of influence on policy, attitudes of various stakeholders and relationships with other healthcare professionals were barriers over which they felt they had very little influence.

Many of these barriers were also identified by policy makers and patient representatives in semi-structured interviews. They too felt that the perceptions of the general public, lack of funding for services, inter-professional relationships and lack of pharmacist involvement in policy making were issues which needed to be addressed. In addition, they raised concerns about the commercial nature of the community pharmacy environment, the limited nature of interactions between pharmacists and patients and the lack of evidence demonstrating the benefit of pharmacist involvement in health promotion.

Although the issues raised in all of the studies were relatively consistent, the ways in which they were discussed by pharmacists and stakeholders were different. Pharmacists suggested that, in order to develop health promotion in pharmacies, support and funding were required to develop services and establish an evidence base and that there needed to be a change in the way pharmacists and pharmacies were viewed by policy makers and the public. Conversely, stakeholders felt that an evidence base was required before support and funding could be committed to pharmacy-led health promotion and that pharmacists needed to make greater efforts to engage with policy makers, other healthcare professionals and the public. Despite the differences in view points, all were agreed that pharmacy services were unlikely to be developed unless there was a change in the contractual arrangements under which pharmacists were paid.

Addressing any one of these issues independently is unlikely to result in a significant change in pharmacy based health promotion in Ireland. Research from other countries suggests that a number of actions are needed at a range of levels. The primary concern in

Ireland is the lack of a coordinated effort to develop pharmacy services in general, and health promotion services in particular. Individual pharmacists can only influence the practice in their own shops. Within the profession, the Pharmaceutical Society acts as a regulator of the profession whilst the Irish Pharmacy Union is primarily concerned with protecting the business interests of its members. The Health Service Executive (HSE) and Department of Health and children do not appear to recognise the potential to use community pharmacists to deliver health promotion initiatives and there are no formal structures which facilitate inclusion of pharmacists in the primary care team or policy making processes. Consequently, no organisation is accountable for driving the development of the services within the profession. A programme for change, which addresses issues at a range of levels in a coordinated way, will be required in order to overcome the barriers identified in this thesis.

Throughout this research the issue of weight control was considered. Although both pharmacists and other stakeholders were dubious about what pharmacists could achieve in this area, a feasibility study indicated that a weight control programme could be successfully developed, delivered and evaluated within community pharmacies. This demonstrated that, with some support and coordination, these types of health promotion services could be successfully delivered within community pharmacies.

Further work is required to understand these issues more fully and to understand how progress in this area is to be made. Considerable progress has been made in gaining recognition for the health promotion role of pharmacists in other countries, and much can be learnt from these examples. However if the role of the pharmacist in health promotion, or indeed in any area of public health, is to be developed in Ireland, it is important that issues raised in this research be considered. Thus, this work provides a solid foundation for future studies aimed at developing the role of the community pharmacist in Ireland.



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## **Publications and Presentations Associated with this research**

Bradley C & Henman M. A qualitative study of pharmacist's attitudes to the delivery of health promotion in the community pharmacy in Ireland. Presented at 14th International Social Pharmacy Workshop, Oxford, July 11-14, 2006, International Journal of Pharmacy Practice, 14, (Supplement 1), 2006, A28 - A29

Bradley C & Henman M. Studies of health promotion and weight control in Community Pharmacy in the Republic of Ireland. Presented at 5th Working Conference of Pharmaceutical Care Network Europe, Gotenborg, 21-24 February, 2007. Pharmacy World and Science, 29 (6), 2007, 713 – 714  
(Awarded Joint Poster Prize)

Bradley, C & Henman, M, Exploring the role of community pharmacists in health promotion. Presented at Health Promotion Summer Conference: Building Capacity for Evidence-based Health Promotion, 5-6 July 2007. National University of Ireland, Galway.

Bradley, C & Henman, M. Exploring the views of key stakeholders regarding the role of community pharmacists in Ireland. Presented at 6<sup>th</sup> Working Conference of Pharmaceutical Care Network Europe, Lisbon 4-7 March, 2009.





## Appendices

## Appendix 4.1: Telephone Invite Guide

May I speak to the pharmacist?

To whom am I speaking?

I am ringing to invite you to participate in a research project. Do you have time for a brief conversation now, or should I call back at another time?

My name is Catriona Bradley and I'm a community pharmacist currently undertaking research in Trinity College Dublin. I'm working on a project to investigate pharmacist involvement in the area of health promotion. To do this we are organising a focus group, where we are inviting a small number of pharmacists (about 8 in total) to a group discussion which will be held in the evening in a few weeks time. Pharmacies have been chosen randomly from the PSI register, and this pharmacy was selected, so I would like to invite you to participate in the discussion. The evening consists of 7/8 pharmacists meeting up – there will be some refreshments and light food available – and informally discussing issues that they believe are important for the development of community pharmacy in the area of health promotion. It will last for about an hour and a half. It will be held on \_\_\_\_\_ in \_\_\_\_\_.

Is this something that you would be able to attend?

IF NOT, can you give me some idea why you aren't interested?

I will be sending you some information, including a map, some instruction on parking etc... so I need to get an address for posting to you.

There will be food served, so do you have any particular dietary requirements?

I will call you back to remind you on the day that the group will be meeting. If I call you on [insert date] during the day, would this be a good number to reach you at?

If you are unable to attend, would you please call and let me know? The number is 087-6355553



## Appendix 4.2: Summary form for telephone conversation

Date and time

Name and address of pharmacy

Male/female

Pharmacist answered?

Interested?

If not, why not?

Address to which details are to be sent. (if different from above)

Special dietary requirements?

Number for contact (if different from above?)

Comments

## Appendix 4.3: Invitation to Focus Groups

### UNIVERSITY OF DUBLIN TRINITY COLLEGE

#### School of Pharmacy & Pharmaceutical Sciences

Panoz Institute  
University of Dublin  
Trinity College, Dublin 2, Ireland.



Telephone: +353 (1) 608 3124  
Fax: +353 (1) 608 2821  
Email: [bradleca@tcd.ie](mailto:bradleca@tcd.ie)  
[insert date]

[insert pharmacy address 1]  
[insert pharmacy address 2]  
[insert pharmacy address 3]

Dear [insert first name]

Thank you for agreeing to participate in the focus group which is being held on [insert date] at [insert time] in [insert venue]. Enclosed with this letter is a map and directions that show you how to get to the hotel. Our meeting will be held in the [insert room name].

As I explained in our telephone conversation the purpose of the evening is to share and discuss pharmacists' views on the development of health promotion in the community pharmacy setting. You will be part of a group of [insert number] community pharmacists randomly chosen from the [insert geographical area eg. Dublin] area.

Sandwiches and refreshments will be provided from 7.30pm, and the focus group will start at 8pm sharp and will be finished by 9.30pm. I know how valuable your time is, and I will respect everyone's schedule by both starting and ending on time. So please allow yourself enough time to reach [insert venue name] by 8.00pm at the latest.

I am delighted that you have accepted the invitation to participate in this group. Please do not hesitate to contact me at 087-6355553 if you would like any further information. Additionally, should you be unable to attend I would appreciate if you could provide me with as much notice as possible so that I may organise another pharmacist to attend in your place.

I look forward to meeting you on [insert date] for what is sure to be an interesting discussion.

Yours sincerely

Catriona Bradley MPSI  
PhD student - Centre for practice of pharmacy  
School of Pharmacy, Trinity College Dublin



## Appendix 4.4: Registration Information at Focus Groups

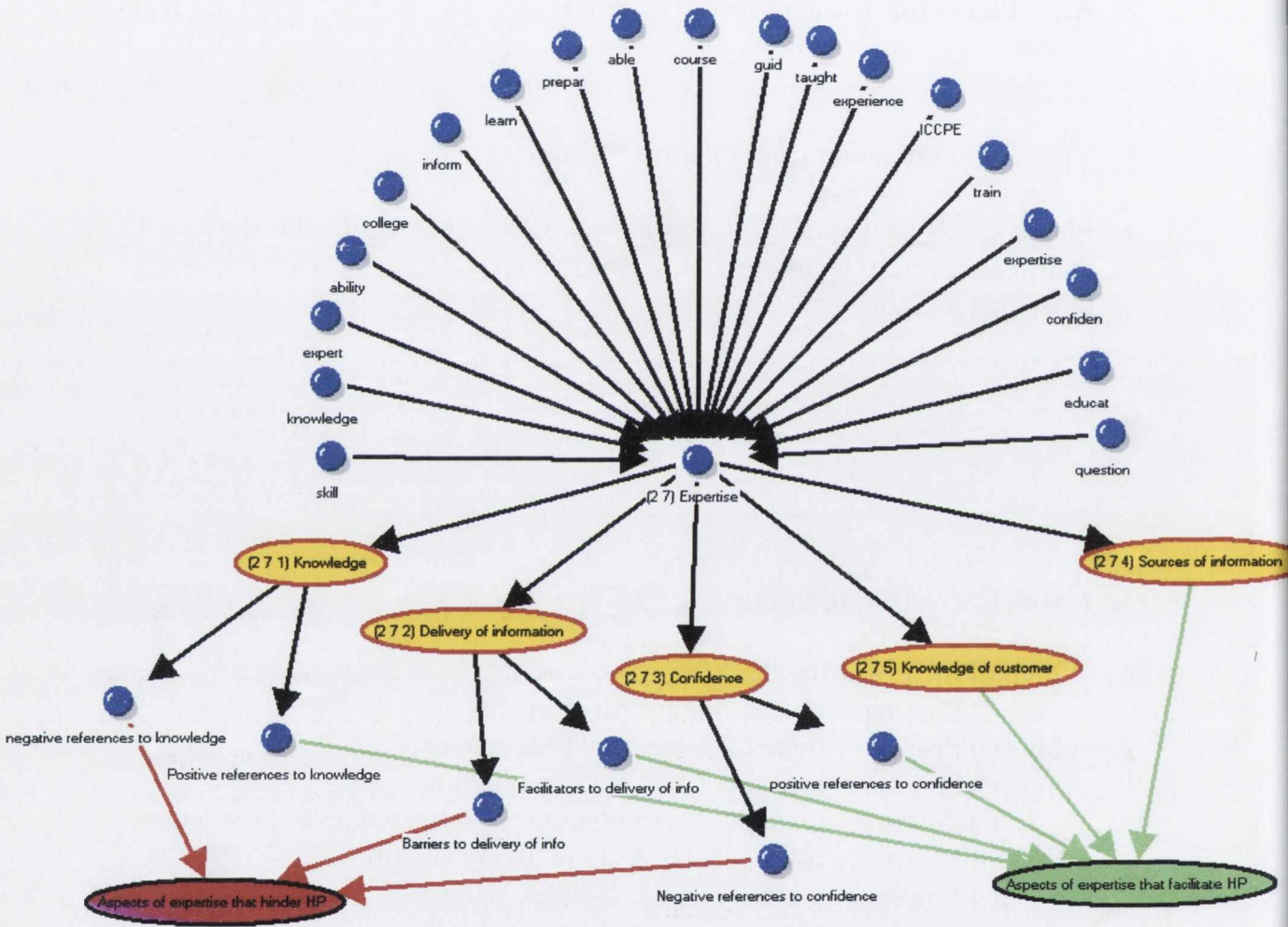
Focus Group with Community Pharmacists  
[Venue] [Date]

Please complete the following background information

1. Your name. \_\_\_\_\_
  
2. Age. Please tick the appropriate response  
 20s                       30s                       40s                       50s                       60s
  
3. Year of Qualification from Pharmacy Degree. \_\_\_\_\_
  
4. Please specify any qualifications that you have obtained in addition to your pharmacy degree (including both those that are related to pharmacy, and those that are not).
  
  
  
  
  
  
  
  
  
  
5. I work ...       Full time                       Part time
  
6. Which of the following describes you?
  - a.  Pharmacy owner – single pharmacy
  - b.  Pharmacy owner – a group of pharmacies
  - c.  Pharmacy manager – for a single pharmacy
  - d.  Pharmacy manager – in a pharmacy that is within a group/chain
  - e.  Pharmacy manager – over a number of pharmacies
  - f.  Employee pharmacist – in a single pharmacy
  - g.  Employee pharmacist – within a group/chain of pharmacies
  - h.  Locum pharmacist
  - i.  Other – Please specify \_\_\_\_\_
  
7. Have you ever worked in areas of pharmacy other than community?  
 Yes                       No

If yes, please specify the other area(s) of pharmacy in which you have worked.

# Appendix 4.5: Model of Coding Strategy for Anticipated Themes





## Appendix 5.1: Survey Questionnaire

### Study of the involvement of pharmacists in the provision of weight control advice in Community Pharmacy

1. Where is the pharmacy located?  
Village  Small town  Large town  Suburban area  City
2. Is the pharmacy....?  
Independently owned  Part of a small chain  Part of a large chain
3. Are you....?  
Owner pharmacist  Pharmacy manager  Employee pharmacist
4. To which age group do you belong?  
20-30  30-40  40-50  50+
5. Are you....?  
Male  Female
6. Does your pharmacy provide a weighing machine for customers' use?  
Yes  No   
If no, please specify why not.  

---
7. Does the pharmacy provide literature (information leaflets, etc.) for customers regarding healthy eating and exercise?  
Yes  No
8. Do you display posters regarding weight loss or weight loss products in your pharmacy?  
Yes  No
9. If a patient approaches you regarding weight loss, do you....?(Tick all that apply)  
Ask their reasons for wanting to lose weight   
Ask how much weight they would like to lose   
Ask if they have tried to lose weight before   
Ask about dietary habits and exercise   
Ask about any existing medical conditions/diseases   
Ask if they are on any medication   
Check weight/Body Mass Index   
  
Other questions? Please specify: \_\_\_\_\_

10. Do you take the patient to a private consultation area?

Yes  No

11. On average, how long would a typical consultation take following a request for information on weight reduction?

\_\_\_\_\_

12. Do you stock weight loss products?

Yes  No

If "no", please specify your reason for not doing so:

\_\_\_\_\_

If "yes", where do you display these products?

Behind counter

Self-selection areas

Other (please specify) \_\_\_\_\_

13. When responding to a request for a weight loss product, do you?  
(Tick all that apply)

Recommend a product

Dissuade the patient from purchasing a weight loss product

Offer advice regarding healthy eating and exercise

Refer the patient to their GP

Discuss will power

Offer a leaflet on weight loss products

Other (please specify) \_\_\_\_\_

14. If recommending a weight loss product, which product(s) do you recommend?

\_\_\_\_\_

\_\_\_\_\_

15. If a patient purchases a weight loss product, do you follow up on the patient's progress?

Always  Sometimes  Never



16. Does your pharmacy have a weight management clinic for patients?

Yes  No

If "no", is it due to (Tick all that apply):

Lack of time

Cost

Lack of public interest

Other (please specify) \_\_\_\_\_

17. Does your pharmacy run the Lipotrim Weight Loss programme?

Yes  No

If "yes", have you found this programme to be successful in terms of pharmacy intervention in the treatment of overweight/obesity?

Yes  No

If "no", have you considered running the programme?

Yes  No  Haven't heard of product before

18. Which factors do you feel may improve the ability of the community pharmacist to tackle the obesity problem in Ireland? (Tick all that apply)

Extra staff

Counselling areas in pharmacies

Weight management clinics in pharmacies

Healthy eating campaigns in pharmacies

Further training for pharmacists

Further training for counter staff

Payment for services

Other (please specify) \_\_\_\_\_

Thank you for taking the time to complete this survey.

<<ID No.>>

## Appendix 5.2: Letter to Pharmacies - Survey

### UNIVERSITY OF DUBLIN TRINITY COLLEGE

#### School of Pharmacy & Pharmaceutical Sciences

Panoz Institute  
University of Dublin  
Trinity College, Dublin 2, Ireland.



Telephone: +353 (1) 896 3124

Fax: +353 (1) 896 2821

<<Pharmacy Name>>

<<Address 1>>

<<Address 2>>

<<Address 3>>

<<Date>>

Dear Pharmacist

I am a 4<sup>th</sup> year pharmacy student at Trinity College, Dublin and am undertaking a project entitled "A study of the involvement of community pharmacists in weight control" under the supervision of Catriona Bradley. I would be most grateful if you could complete the enclosed short questionnaire and return it as soon as possible, or at the latest by Friday, 26<sup>th</sup> November. I am aware that you may be busy, but I have ensured that the questionnaire is short enough to be completed in a few minutes, and maybe you can enjoy a cup of coffee while completing it. I can assure you that all replies will be treated anonymously and I have included a pre-paid return envelope for your convenience.

I am available at the above address should you have any queries and I would also be interested in any additional information and views you may have on the topic

I look forward to your reply.

Thanking you for your time and help in this matter,

Regards

Helen Byrne  
Supervisor: Catriona Bradley M.P.S.I. (PhD student)



## Appendix 5.3: Letter to Pharmacies – Simulated Patient Study

### UNIVERSITY OF DUBLIN TRINITY COLLEGE

#### School of Pharmacy & Pharmaceutical Sciences

Panoz Institute  
University of Dublin  
Trinity College, Dublin 2, Ireland.



Telephone: +353 (1) 896 3124

Fax: +353 (1) 896 2821

<<Pharmacy Name>>

<<Address 1>>

<<Address 2>>

<<Address 3>>

<<Date>>

Dear Pharmacist

I am currently undertaking a PhD in Trinity College Dublin, under the supervision of Dr. Martin Henman, to explore the area of health promotion within community pharmacy. This research aims to identify the extent to which pharmacists are currently involved in health promotion, and to identify ways in which this role could be developed in the future. In order to do this effectively, it is necessary to gain information on the ways in which pharmacy staff currently provide health promotion advice to the public. As part of this work, a simulated patient study will be conducted in twenty pharmacies in the greater Dublin area and your pharmacy has been randomly selected to be included in this study.

The study will involve two researchers posing as customers and coming into your pharmacy seeking advice at some point in the near future. The manner in which their query is handled will be documented and used to contribute to a summary of current activities. The combined results of this work in all twenty pharmacies will be used as an indication of the current level of health promotion being provided in community pharmacies.

All results and data will be dealt with anonymously and neither your pharmacy nor your staff will be identifiable in any way from the study or any subsequent reports. Please rest assured that this work does not seek to individually assess or compare any pharmacy but instead will be used to contribute to an overall summary of current practice. Ethics approval for this work has been sought from and granted by the Faculty of Health Sciences Ethics Committee, Trinity College Dublin, and all work will be carried out in accordance with the guidance set out by this committee.

Your participation in this study is appreciated as it will contribute to the development of future roles within the profession. No response to this correspondence is required. However should you have any queries in relation to the study, or if you wish to be excluded from the study, please feel free to contact me at the contacts listed above.

Similarly, if you wish to be informed of the results of my work once it has been completed, I would be more than happy to share these with you.

Regards

Catriona Bradley M.P.S.I.  
PhD student





## **Appendix 5.4: Post-visit form**

Name and address of Pharmacy

Duration of interview

Approximate age of pharmacist

Male/Female

Nationality

Did the assistant ask you any questions?

Did they try to weight loss products without questions?

Did you speak to the pharmacist?

### **Were any of the following questions asked by the member of staff**

Why do you think you need to lose weight?

Have you tried any slimming product before?

How much are you hoping to lose?

For when?

Dietary habits/exercise?

Any diseases/conditions?

Any other medications?

Other questions

Did the pharmacist check your weight/BMI?

### **Advice given**

Buy slimming product

Buy detox product

Dietary change/exercise tips

Will power

Did they give you a leaflet?

Other advice?

Were you referred to a doctor?

- explanation for referral

**Other observations**

Were slimming products displayed where you could see them?

- behind counter
- shop floor (within reach)

Were there posters about weight loss displayed?

Were there leaflets/information booklets displayed?

Did they take you to a private area for consultation?

Was there a weighing scales/machine?

How busy was the shop?

- Empty
- Some customers
- Busy

**Additional comments**



## Appendix 7.1: Letter to Interview Participants

### UNIVERSITY OF DUBLIN TRINITY COLLEGE

#### School of Pharmacy & Pharmaceutical Sciences

Panoz Institute  
University of Dublin  
Trinity College, Dublin 2, Ireland.



Telephone: +353 (1) 896 3124  
Fax: +353 (1) 896 2821

<<Pharmacy Name>>  
<<Address 1>>  
<<Address 2>>  
<<Address 3>>

<<Date>>

Dear (insert Contributor name)

I am writing regarding our conversation on (insert time and date of initial conversation) where you indicated that you would be willing to meet me in January to share your views on the development of pharmacy services.

I am a pharmacist, currently in the final year of my doctoral research, which is being conducted in the School of Pharmacy, Trinity College Dublin, under the supervision of Dr. Martin Henman. My research explores the potential for delivering community based health promotion programmes in the community pharmacy setting.

I believe that there are a number of stakeholders that should be consulted before any recommendations can be made regarding service delivery in community pharmacy. These include pharmacists, patients, other health care professionals, the HSE, Health Promotion experts and political decision makers. Therefore, I am seeking the opinions and contributions of a number of representatives from each stakeholder group via semi-structured interviews. To this end, I would like to conduct an interview with you, to receive your views on the appropriateness of, and issues associated with, pharmacy based, health promotion interventions.

In order to protect the integrity of the research process all interviews will be dealt with in the following way;

- The interview will last approximately one hour and will be digitally recorded for the purpose of analysis.
- All recordings and subsequent transcripts will be anonymously labelled and will not be used for any purpose other than that of this study. Names of participants will only be used when jointly reporting the names of those who have contributed to the study.
- All views shared by contributors will be treated confidentially, and all comments will be reported anonymously.
- Contributors will be provided with a full transcript of the interview.

I believe that your comments and thoughts on this matter are absolutely essential in understanding the issues that need to be considered when developing any pharmacy based services, and I am therefore delighted that you have agreed to partake in this study.

You have indicated that (insert time of meeting) would be a good time for you to meet me. Whilst you are more than welcome to come to the School of Pharmacy for the interview, I am also more than happy to attend at any venue of your choosing.

If you have any further questions regarding this study, please do not hesitate to contact me at 087 6355553.

Thanking you for your co-operation

Yours faithfully

Catriona Bradley, MPSI



## Appendix 7.2: Letter to Interview Participants

### Consent form for Contributor No. (insert contributor number)

**PROJECT TITLE:** An evaluation of attitudes of key stakeholders regarding the role of the community pharmacist in the delivery of health promotion.

**PRINCIPAL INVESTIGATORS:** Catriona Bradley & Dr. Martin Henman

#### **BACKGROUND:**

In this study we aim to understand the views of a range of stakeholders regarding the potential development of the community pharmacists' role in the area of health promotion. Understanding these views will provide greater clarity on how the pharmacist's role in delivering health promotion can most effectively be developed.

We are interviewing approximately fifteen people whom we have identified as key stakeholders. You have been chosen (insert role) and we are interested in hearing your views in this capacity.

An interview of approximately one hour in duration will be conducted at (insert time and venue details for interview). The interview will be digitally recorded and subsequently transcribed and analysed. Only two researchers directly involved in this project will have access to these transcriptions, namely Catriona Bradley (researcher) and Dr. Martin Henman (supervisor), both of the Centre for Pharmacy Practice, The School of Pharmacy and Pharmaceutical Sciences, Trinity College Dublin.

In order to protect the integrity of the research process all interviews will be dealt with in the following way;

- All recordings and subsequent transcripts will be anonymously labelled and will not be used for any purpose other than that of this study.
- Material stored in electronic form will be similarly labelled and stored only on the computer of the researcher (Catriona Bradley) which is user name and password protected for her sole use.
- All comments will be reported anonymously. Names of participants will only be used when jointly reporting the names of those who have contributed to the study.
- Contributors will be provided with a full transcript of the conversation.

Any queries relating to this study should be directed to Catriona Bradley at [bradleca@tcd.ie](mailto:bradleca@tcd.ie) or 087 6355553.

#### **DECLARATION:**

I have read, or had read to me, the information leaflet for this project and I understand the contents. I have had the opportunity to ask questions and all my questions have been answered to my satisfaction. I freely and voluntarily agree to be part of this research study,

though without prejudice to my legal and ethical rights. I understand that I may withdraw from the study at any time and I have received a copy of this agreement..

**PARTICIPANT'S NAME:**.....

**CONTACT DETAILS:** .....

**PARTICIPANT'S SIGNATURE:**.....

**DATE:**.....

**Statement of investigator's responsibility:** I have explained the nature and purpose of this research study, the procedures to be undertaken and any risks that may be involved. I have offered to answer any questions and fully answered such questions. I believe that the participant understands my explanation and has freely given informed consent.

**INVESTIGATOR'S SIGNATURE:**.....

**Date:**.....