

Feedback from community pharmacy users on the contribution of community pharmacy to improving the public's health: a systematic review of the peer reviewed and non-peer reviewed literature 1990–2002

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Abstract

Objective To systematically review feedback from pharmacy users on their perceptions and experiences of health-related advice and services provided from community pharmacies.

Methods The focus of the review was community pharmacy activities in relation to promoting health and well-being, preventing ill-health and maintaining health. Searches were conducted for peer-reviewed (international) and non-peer-reviewed (UK) research. Electronic databases searched included MEDLINE, EMBASE, Cochrane Library and International Pharmaceutical Abstracts; hand searches of key journals and conference abstracts, key informants. Key informants in the UK were contacted to identify unpublished studies. The inclusion period was 1990 onwards.

Data extraction and synthesis Data were abstracted into a matrix by one author with a sample checked by a second. The Health Development Agency's Evidence Base 2000 standards and the evidence categories used by the Department of Health in the National Service Frameworks were applied to each item.

Main results Seven peer reviewed papers and 13 non-peer reviewed reports were identified for inclusion in the review. Consumer usage of pharmacies is almost universal with prescription supplies and purchase of over the counter medicines predominating. Evidence shows that not only is usage low for general health advice, but that pharmacists are perceived as 'drugs experts' rather than experts on health and illness. Emergency hormonal contraception and head lice management schemes have been well received. There is a need to consider privacy and confidentiality surrounding advice giving.

Conclusions Users of community pharmacy-based health development initiatives express a high level of satisfaction. If community pharmacies are to be used to their full extent, then actions to extending the public's awareness and acceptance of the pharmacist's role in giving advice will be crucial. Further research will be needed to measure any change in premises development on the public's perception of the level of privacy in pharmacies.

Introduction

Promotion of healthy lifestyles is one of the five core pharmacist roles defined by the Royal Pharmaceutical Society of Great Britain.¹ During the last decade, there has been considerable interest and activity in research into and development of the public health role of community pharmacies. This setting has been of interest to health development planners, combining, as it does, high accessibility with the presence of a trained health professional. Campaigns by the Department of Health, pharmacy organizations and, more recently from medical organizations, such as the British Medical Association's doctor-patient partnership, have encouraged the public to make greater use of the pharmacy as a source of advice.

Feedback from service users is an increasingly important component of quality programmes in health care, both in the design of new services and the evaluation of existing services. Interestingly the voice of community pharmacy users has been largely absent from these discussions, with the exception of a small number of covert participant observation surveys conducted by the Consumers Association testing the quality of advice about minor illness.

In an earlier review of the literature² it was found that the community pharmacist's role in health promotion had been examined as part of wider pieces of research. The published work at that time suggested that consumers were broadly sympathetic to the idea of pharmacists providing health advice. However few would take the initiative in approaching the pharmacist and asking for advice.

A recent EU project³ concluded that with respect to users of community pharmacy

services, knowledge on users' expectations is almost exclusively based on research carried out in the UK. Co-operation exists in many member states with patients' organizations, mainly with regard to provision of training for chronically ill people, and also by organizing campaigns. It was suggested that users' expectations and preferences shall be more systematically explored, paying attention to cultural differences (also of different groups of users/patients according to age, gender, socio-economic status, etc.) and contextual factors related to community pharmacy practice.

The objective of the work reported here was to conduct a review of research that obtained feedback from community pharmacy users about their use of pharmacies for health reasons. This work was part of a wide-ranging review of literature on the contribution of community pharmacy to improving the public's health.^{4,5}

Methods

Scope of the review

The review included pharmacy activities for both individuals and wider communities relating to promoting health and well-being (e.g. nutrition, physical activity), preventing illness (e.g. smoking cessation, immunization, travel health), identifying ill-health (e.g. screening and case finding) and the maintenance of health for those with chronic conditions (e.g. nutrition and physical activity in diabetes). The review did not include the advice-giving role of pharmacists in relation to the treatment of acute self-limiting conditions, the management of minor illness, prescribing and medication

review because it has been adequately covered elsewhere.^{6,7} Thus we sought to identify evidence of wider roles beyond those which are medicines related.

Search strategies

Peer reviewed literature

Electronic databases were searched from 1 January 1990 to 1 February 2001 for UK and international literature: MEDLINE, EMBASE, Cochrane Library and International Pharmaceutical Abstracts. The inclusion period was from 1990 onwards as a previous review included earlier publications.² Hand searches for the same period were taken from the Health Education Journal, International Journal of Pharmacy Practice, Journal of Social and Administrative Pharmacy, Pharmacy World and Science, Annals of Pharmacotherapy (1992 onwards; previously Drug Intelligence and Clinical Pharmacy 1990–1991), Pharmaceutical Journal, Scanner, and abstracts of the British Pharmaceutical Conference and Health Services and Pharmacy Practice Research Conference. All searches included non-English language literature. Those studies with English abstracts were assessed for inclusion on the basis of the abstract.

Search terms for MEDLINE, EMBASE and International Pharmaceutical Abstracts were pharmacists, community pharmacy, community pharmacy services, pharmacies, pharmaceutical services, health education, health promotion, public health, smoking cessation, diet, body weight and coronary heart disease. The Cochrane Library was searched using a combination of the following terms: pharmacist, pharmacy, community pharmacy, health education, health promotion, smoking cessation, diet, body weight and coronary heart disease.

The authors separately examined the lists of titles and abstracts of papers from the searches and then compared inclusion/exclusion lists and resolved any differences by discussion. Hard copies were obtained from all papers to be considered for inclusion.

Abstraction of data

Data from the published papers were abstracted and entered into a matrix using the following framework: authors and study; study quality; country; study design and participants; interventions (including training); outcome measures; results; conclusions. A subsample of six papers was abstracted by two of the authors (AB/CA) and the findings compared to identify any differences and resolve them through discussion.

Quality assessment

Quality assessment frameworks for research are generally based on a hierarchy of evidence with the randomized controlled trial (RCT) as the 'gold standard'. The literature in the field of pharmacy practice/health promotion/public health in pharmacy contains relatively few RCTs, and a substantial number of experimental and descriptive studies. Two approaches were used to assess the quality of the evidence. First, the Health Development Agency's Evidence Base 2000's standards for transparency, systematicity and relevance were applied to each paper (see Box 1). Secondly, each study was allocated an evidence grade using the evidence categories used by the Department of Health in the National Service Frameworks (see Box 2). This framework was used for both peer-reviewed

Box 1 Health Development Agency standards: Evidence Base 2000

- *Transparency* – evidence must include a clear and transparent account of how it was collated, which sources of information have been consulted, who was involved in collating the evidence, how the work was funded, a full disclosure of any analysis and findings.
- *Systematicity* – evidence identified must display clearly, regardless of the individual study, report or review methodology, the process through which the evidence was gathered and assessed.
- *Relevance* – evidence must be judged to be relevant to health development, and in this instance to the role of community pharmacy

See the Health Development Agency's website <http://www.HDAonline.org.uk/evidence/eb2000>: Evidence base-quality standards for evidence.

Box 2 Evidence categories used by the Department of Health in the National Service Frameworks

Evidence from research and other professional literature	
A1	Systematic reviews which include at least one Randomized Controlled Trial (RCT), e.g. systematic reviews from Cochrane or NHS centre for reviews and Dissemination.
A2	Other systematic and high quality reviews which synthesise references.
B1	Individual RCTs.
B2	Individual non-randomized, experimental/intervention studies.
B3	Individual well-designed non-experimental studies, controlled statistically if appropriate. Includes studies using case control, longitudinal, cohort, matched pairs or cross-sectional random sample methodologies, and well-designed qualitative studies; well-designed analytical studies including secondary analysis.
C1	Descriptive and other research or evaluation not in B (e.g. convenience samples).
C2	Case studies and examples of good practice.
D	Summary review articles and discussions of relevant literature and conference proceedings not otherwise classified.

and non peer-reviewed items and was piloted using a sample of 12 items (six from each of peer-reviewed and non-peer-reviewed). Data were abstracted and cross-checked by two of the authors (CA/AB). The results were reviewed by the project steering group, which agreed the use of the framework for the main review.

The matrix was used as the basis for a qualitative synthesis of the findings and interpretation, taking into account the quality of evidence.

Non-peer-reviewed UK literature

The search for non-peer-reviewed research was restricted to the UK because of available resources. Studies were identified by contacting key informants in England, Scotland, Wales and Northern Ireland and pharmacy schools and postgraduate pharmacy and medicines management departments ($n = 20$) in England, Scotland, Wales and Northern Ireland. Key informants were identified through national pharmacy organizations (postgraduate educa-

tion, pharmacy services, the Royal Pharmaceutical Society and its networks) and asked to identify any reports of research involving pharmacists and the health of the public that had not subsequently been the subject of publication in peer-reviewed journals. Copies of the reports identified were obtained. The period for collecting evidence was January 1990–June 2002.

A named individual in each school of pharmacy was contacted by e-mail in February 2002, with a reminder in March 2002. Respondents were informed of the context of the review (the role of the pharmacist in health development and health promotion) and asked to identify relevant MSc, MPhil and PhD research submitted between 1990 and 2001. They were asked to send a copy of the title page and abstract from each relevant thesis. Where the abstract contained insufficient information the individual research student was contacted to obtain it. Each item was read by one of the authors (AB) and the following inclusion criteria were applied: reported original research, sufficient methodological detail on study design, sampling and response rate, adequate methodological design, for surveys, response rate over 50%, topic within health development remit and reported within review timeframe.

Data were extracted from each item and entered into a matrix with the following headings: title, author/s, evidence type (report, thesis), year of publication, evidence grade (using Department of Health NSF categories), objectives, study design, sample and response rate, key findings, other comments. The matrix was used as the basis for a narrative, which took into account the quality of the evidence.

Results

In total 28 studies were identified for potential inclusion (10 peer-reviewed and 18 non-peer-reviewed) of which 20 were included in the review (seven peer-reviewed and 13 non-peer-reviewed). Reasons for exclusion were: outside review remit (five), low response rate (two) and not research (one). No studies were identified from countries outside the UK. Details of the

reviewed evidence are found in Tables S1 and S2 at <http://www.blackwell-science.com/products/journals/suppmat/HEX/HEX274/HEX274sm.htm>. The review of pre-1990 literature did not contain any studies involving pharmacy users.

The public's use of community pharmacies

Consumer usage of community pharmacies is high, with 94% of respondents in a large (517 adults) interview-based survey having used a pharmacy in the previous year for one of three core reasons: obtaining prescription medicines; 'over the counter' (OTC) medicines purchase; healthy lifestyles related advice.⁸ Reported usage was for prescriptions (90% of respondents), over the counter medicines (30%) and seeking general health advice (10%). The A Classification of Residential Neighbourhoods (ACORN) classification was used in sampling. Usage for general health advice was higher among women, respondents with young children and the C2DE categories. Respondents in the 'striving' ACORN group live in the poorest conditions and correspond well with those in the 'inner city' group who are the most frequent users of pharmacies (Table 3). Overall 14% of respondents reported receiving unsolicited health advice from pharmacies.

A health diary study of health status and usage of health resources in primary care among 834 residents in 346 households found that frequency of pharmacy use was high and mainly restricted to the prescription service.⁹ Most people self-managed minor conditions, with 5.5% using the community pharmacy for advice. Interviews with a subsample of 41 diary respondents found that community pharmacists were perceived as 'a drug expert – advising on medicines not illness'.

Public perceptions of the pharmacist's role in giving health advice

In a major UK study involving interviews with 592 community pharmacy service users, the preferred source of advice for 'staying healthy' was the GP for 77% and the pharmacist for 8%.¹⁰ Overall 40% agreed it was the pharmacist's 'usual job' to advise on staying healthy (prescription service users being most likely to agree), 19% disagreed and 41% said they did not know. However only 15% said that they had ever sought such advice from a pharmacist. The same study also explored public awareness of the availability of information leaflets on health topics in community pharmacies. Over 90% of respondents had noticed health topic leaflets in their pharmacy and 30% had taken one or more leaflets to read. Most of the service users who had taken leaflets reported finding them useful.

Interviews with 600 customers in 30 community pharmacies in Scotland¹¹ showed a clear distinction in the proportion willing to seek advice on medicine-related and non-medicine-related topics (see Table 4). When asked why they were not willing to discuss healthy eating with the pharmacist, two-thirds said they 'already knew enough about it'. However 22% said either that they did not see this as part of the role of the community pharmacist or that it had not occurred to them that pharmacists could provide such advice.

A survey of the views of 'established' users of four community pharmacies in Ireland on the pharmacist's role in health education and promotion was completed by 112 (72%) of respondents.¹² The majority considered that the pharmacist was qualified to discuss health matters, with 12% disagreeing. The pharmacist was

Table 3 Use of community pharmacies by A Classification of Residential Neighbourhoods (ACORN) categories

	Striving	Thriving	Settling	Aspiring	Rising	Expanding
At least once every week to every 4 weeks (%)	57	48	53	46	47	35
Usage 2 months to once within last year (%)	43	52	47	54	53	65
Average number of times per year	14	12	12	12	12	10

Table 4 Willingness of pharmacy customers to discuss health topics with the pharmacist (*n* = 600)

Health topic	Percentage of customers agreeing (%)
Prescribed medicines	86
Minor health problems	84
Smoking cessation	66
Sensitive topics	33
Healthy eating	32
Exercise	20

Source: Coggans *et al.*¹¹

seen as the first source of health information by 18% of respondents.

An interview-based survey of 1000 members of the public was conducted in Northern Ireland¹³ to examine attitudes towards current and future roles of community pharmacists in health promotion and health screening. Support for both health promotion and screening activities was highest in those under 60 years of age. Just over half the respondents said they would be willing to pay for cholesterol testing and blood pressure measurement in the pharmacy, with older patients more likely to do so. Around 40% said they would be willing to make an appointment with their pharmacist for health promotion or screening.

Over one-quarter of the 224 respondents in a questionnaire survey to determine pharmacy users views of health information leaflets in pharmacies reported difficulty in identifying the pharmacist and a similar proportion agreed, 'the pharmacist prefers to keep out of sight'. The researchers concluded, 'there are still many people who are unaware of the pharmacist's role as an adviser on general health matters'.¹⁴ None of the respondents in a survey of 224 users spontaneously suggested that they would go to the pharmacist for advice on contraception or safer sex.¹⁵

A consumer survey of 427 'high users' of community pharmacies and 358 members of the general population asked participants whether they had noticed or read leaflets on health matters in the pharmacy.¹⁶ Those who reported having read leaflets were asked if they had found them useful. Two-thirds of high users and half of the general

population had noticed leaflets in the pharmacy. Leaflets had been taken and read by 37% of high users and 23% of others. The authors conclude that passive display of leaflets meant that many pharmacy customers missed them.

Users' experience of advice and services in the pharmacy setting

Several studies were identified that obtained feedback from users about advice and services actually received. User feedback from a health promotion scheme in 10 community pharmacies in one area of the UK showed that prior perception of the pharmacist's involvement in health advice was low but that the pharmacist's input was invariably received positively. The scheme covered oral health, physical activity, smoking cessation and the use of prescribed medicines. Numbers of interactions for the latter two topics were far higher than for the first two.¹⁷ In another scheme involving 14 community pharmacies, 390 consumers completed a questionnaire after receiving advice and 69% of respondents indicated that they use pharmacies to ask for advice. However, on the day that they had filled in the questionnaire, only 23% of them had specifically come into the pharmacy to ask for advice. Over three-quarters were satisfied with the advice and had learned from it. Nearly all of them said that they would use the pharmacy again as a source of advice on health matters.¹⁸ Users who received advice on women's health in a pilot study in four pharmacies were reported to respond positively.¹⁹

Two recent studies have sought feedback from users of a new community pharmacy public health service, supply of emergency hormonal contraception (EHC) Emergency Hormonal Contraception through a Patient Group Direction (PGD). PGDs are group-prescribing protocols, which provide the legal authority for suitably trained and accredited pharmacists (or other health care professionals, for example nurses) to supply a Prescription Only Medicine (in this case Levonelle-2) to requesting clients. Women receiving EHC through a PGD in

pharmacies in south London showed a high level of satisfaction with the service,²⁰ as did those in a national survey of women receiving the treatment on prescription, PGD or purchasing it 'over the counter'.²¹ Pharmacies were highly rated as a place to obtain and discuss EHC. A desire for anonymity was the reason why 9.7% of women surveyed had opted for 'over the counter' purchase of EHC.

One study investigated the views of service users of pharmacy drug misuse services.²² Users perceived pharmacists as service providers but not as a source of advice. Some service users reported positive experiences of their interactions in pharmacies but others considered themselves to be stigmatized by community pharmacists.

Pharmacy premises – privacy, anonymity and confidentiality

We have used the following descriptions as the basis for consideration of privacy, anonymity and confidentiality: Privacy, being able, or having the facilities, to hold a private discussion in the pharmacy at a convenient time for the user without being overheard; anonymity, where the user goes to the pharmacy for advice or services with the explicit intention of remaining anonymous and/or untraceable; confidentiality, pharmacy already have a duty of confidentiality to all users, including not releasing information gained from a consultation to the user's doctor without the user's express permission.

The results of a self-completion questionnaire study of community pharmacy users suggests that the public may have a different view of what constitutes appropriate facilities to enable private discussions. The researchers found that 'two-thirds of the respondents would like to be able to talk to the pharmacist in private, while only 5% had found and used such facilities to date'.¹⁴

In her study of the health information needs of people buying aspirin for heart disease prevention or receiving it on prescription, Kinghorn²³ concluded, 'pharmacy premises were considered by some to lack privacy.'

The most important factor for users considering a pharmacist for advice in a study on

contraception and safer sex was the availability of a quiet area, cited by 41% of the 224 respondents.¹⁵ Quality and confidentiality of pharmacists' advice were identified by users as influencing possible use of a community pharmacy advisory service on women's health.¹⁹

The results of consumer studies conducted prior to and as wider access through pharmacies to EHC provide important insights into perceptions and actual experience. A consumer study of attitudes towards community pharmacy supply of EHC prior to deregulation from POM (prescription only medicine) to P or supply on PGD involved 10 focus groups with women who had used or might use EHC.²⁴ While women were positive about pharmacy supply of EHC, the open pharmacy environment was a 'major concern'. The same study also found that participants were concerned about confidentiality in the community pharmacy setting and about what records would be kept of the supply. It is not possible to tell from the findings the distribution of these concerns between women who were expressing their perceptions and those who had used EHC.

In a study of women who had all obtained EHC from pharmacies by PGD most were satisfied with the level of available privacy, although approximately one in five felt there was insufficient privacy for their discussion with the pharmacist.²⁰

In a national survey of women's experience of obtaining EHC through community pharmacies, the setting was highly rated as a suitable place to obtain and discuss EHC by women receiving it on prescription, PGD or through OTC purchase.²¹ These findings suggest that many women find it acceptable to discuss this sensitive subject in a community pharmacy. The same study found that most women did not have concerns about confidentiality, although roughly one-quarter of women did express some concerns about this.

Most (80%) women using a community pharmacy-based osteoporosis screening service felt they were treated with 'complete' privacy and confidentiality, with 18% reporting a 'degree of privacy' and 2% giving a negative rating.²⁵

Two reports of community pharmacy-based head lice management schemes included an assessment of users' perceptions of privacy. In the first study, 17.6% of 336 users reported being embarrassed to speak to the pharmacist about head lice.²⁶ In the second study, 42% of users agreed that they were able to discuss their problem in private, 34% said they were not and 24% said they were 'not bothered' about this aspect.²⁷

A survey completed by 430 users of community pharmacy schemes supplying emergency hormonal contraception found that 91% felt 'comfortable' or 'very comfortable' about discussing emergency contraception with the pharmacist.²⁸ This study explicitly addressed users' perceptions of privacy in the pharmacy and found that 86% said there was sufficient privacy to talk to the pharmacist comfortably. Ninety-nine per cent were 'satisfied' or 'very satisfied' with the manner in which their request for emergency contraception was dealt. A minority (16%) indicated that they were 'concerned' or 'very concerned' that information about their request for emergency contraception would not be kept confidential by the pharmacy. Overall these findings demonstrate a high level of user satisfaction. Although a minority of users only expressed concerns about confidentiality, this finding suggests that it would be useful to provide more information to the public about pharmacists' professional responsibilities regarding confidentiality of patient information.

Effects of community pharmacy advice on users' behaviour

We found only one study examining the impact of pharmacists' advice on subsequent health behaviour. A total of 105 (72%) service users who had consulted with community pharmacists in a local health promotion scheme in the UK responded to a follow-up survey 4 weeks later.²⁹ Nearly 70% reported that they had followed the advice they had received and only 4% reported that they had not followed any aspect of the pharmacist's advice.

Key findings (peer-reviewed literature)

- In feedback from service users, the majority report having followed the health advice given by pharmacists with positive views on the pharmacist's input (B3).
- Most pharmacy users perceive there is sufficient privacy in the pharmacy to discuss even sensitive subjects (B3).
- Awareness of pharmacy-based leaflets on health topics among pharmacy users is higher among those who are taking prescribed medicines (B3).

Key findings (non-peer-reviewed sources)

- Consumer usage of community pharmacies is almost universal but is low for general health advice (B3).
- Community pharmacists are perceived as 'drugs experts' rather than experts on health and illness (B3).
- Community pharmacies are highly rated by users as a source of supply and advice for EHC (B3).
- Most EHC pharmacy service users report adequate facilities for privacy in community pharmacy with a consistently sizeable (20%) minority expressing concern (B3).
- A sizeable minority (25%) of women obtaining EHC from community pharmacies report having concerns about confidentiality (B3).
- User feedback showed community pharmacy head lice management schemes service to have been well-received (B3).
- Between 18 and 34% of community pharmacy head lice management scheme users had some concerns about privacy in the pharmacy during their consultation (B3).

Discussion

In this study, the first review of evidence of feedback from community pharmacy users, we reviewed 20 studies. Most were conducted in relation to specific services and we found little research that addressed the broader issue of the

public's response to community pharmacy's wider contribution to improving health. Nevertheless many of the service-specific studies included some aspects of wider generalizability. The review adds significantly to understanding of pharmacy user perspectives. While consumers association studies have commented on the researchers' perceptions of privacy and helpfulness in the pharmacy, the main focus has been on the extent to which advice was technically correct and to which the process adhered to professional guidance.³⁰ Most of the studies we identified were of good methodological quality, with well-conducted qualitative studies making a distinctive contribution to understanding the reasons influencing usage of community pharmacies.

Public expectations of community pharmacy

Public response to pharmacists' health development involvement appears, at times, to be contradictory. When asked in a theoretical way about whether they perceive the pharmacist to have a role in providing general health advice, the public's response tends to be cautious. However when such advice and services are offered the uptake is generally good, and feedback predominantly positive, suggesting that the public currently has low expectations of the community pharmacist.

Some members of the public are undoubtedly willing to take up the advice and services offered, and it appears that those currently most likely to do so are already regular pharmacy service users for prescribed medicines. This creates a paradox that while community pharmacies are visited by the healthy as well as the sick, the former group may be the most difficult to engage. Endorsement of pharmacists' involvement in health development by other stakeholders, including referrals to pharmacies, and changes to remuneration arrangements could allow and encourage pharmacists to become more proactive in their approach and thus build wider public acceptance.

Findings from the non-peer-reviewed literature provided further confirmation of those in the

peer-reviewed literature about consumer views of community pharmacy and health development. A common theme was that although specific needs were identified, users did not generally perceive the pharmacist as a source of health advice. Although users tended to cite the GP as the key source of health information and advice, they nevertheless perceived the pharmacist as a highly appropriate source of advice about, for example, the use of aspirin in CHD prevention and they welcomed the increased convenience and access resulting from deregulation of the supply of emergency hormonal contraception. These findings suggest that users are more likely to accept the community pharmacist's role as health adviser, at least initially, when related to medicines supply. Pharmacists seem to be aware that the public may not perceive them as authoritative advisers on *health*, as opposed to *medicines*. Many of the pharmacists interviewed in a qualitative study recognized that the public 'did not recognize the extent of their training and skills and see them as shopkeepers, not health educators'.³¹ Research findings suggest that pharmacists may perceive that external authority is needed to convince the public that the pharmacist has a role to play in health advice. Pharmacists who participated in a large questionnaire study were reported to be 'keen for the public to be better educated about the role of the pharmacist in health care in general'.³²

Pharmacy premises – privacy, anonymity and confidentiality

Several studies showed that some pharmacy users expressed concerns about the level of privacy in community pharmacies and that a pharmacy might be selected, or deselected, depending on the facilities for private discussion. This was found to be particularly important in research on consumer attitudes to pharmacy advice on contraception and sexual health. The results of surveys of women who obtained EHC from community pharmacies were positive overall but indicate that for some pharmacies there is a need to review facilities, with approximately one in five women perceiving insufficient privacy. Studies of head

lice management services based in community pharmacies showed that 18–34% of users expressed some concerns about the level of privacy during their consultation. Pharmacists can use this type of feedback to review how and where discussions are held in the pharmacy.

User perceptions of confidentiality were explored in studies on EHC and osteoporosis screening. The findings suggest that publicity about the requirements for pharmacists and their staff to maintain confidentiality may also be needed so that pharmacy users have a clearer picture.

It is possible that as more pharmacies are refitted with provision for a consulting room or an obvious 'quiet area', or because pharmacies providing these facilities are preferably selected by users and service commissioners, that consumer perceptions may change over time. Interestingly, there is some evidence of a gap between pharmacists and users perceptions of what might constitute 'privacy' in the pharmacy. While some subjects are perhaps more obviously sensitive (e.g. emergency contraception) pharmacists may see some others as routine and not necessarily needing privacy (e.g. head lice). Further research is needed to address this issue and also track any changes in premises development and the resulting use of pharmacies. It is possible that user surveys recommended in the implementation of clinical governance could also provide direct feedback to pharmacists.

Methodological considerations

We used the traditional hierarchy of evidence to classify the strength of evidence from individual studies. Such classification is arguably most appropriate when considering effectiveness of interventions and less appropriate in the context of the type of descriptive research that characterizes user feedback, where its usefulness is more limited.

In the 'peer reviewed' literature we only included studies for which there was direct evidence of peer review. While commissioned research is unlikely to have undergone a peer review process, the research undertaken and submitted for higher degrees will have been subject to a form of peer

review through the internal academic supervision process and assessment by internal and external examiners. Little of this work found its way into the peer-reviewed literature. Nevertheless many of the studies we found were of good quality and this body of work can help to inform the pharmacy profession and health care commissioners about the future development of community pharmacy-based services.

The non-peer-reviewed literature strengthens the evidence base for community pharmacy's contribution to health development by providing further insights into user attitudes to advice and service provision. In particular it has provided new evidence to show the user acceptability and high rating given to community pharmacy-based EHC and head lice management services.

Policy implications

Although the public response to specific services is positive, the findings of the review suggest that more active promotion is needed in the UK regarding the wider role of the community pharmacy in general health advice. The NHS could address this at both national and local levels. Community pharmacies in the UK are funded through a mix of public and private sources and activities conducted on behalf of the NHS must be financially viable. The NHS in Scotland has implemented a policy of support for premises modernization of pharmacies and, in particular, the installation of consultation areas to increase the level of privacy. Pharmacy's professional body should consider and address ways in which ethical requirements for confidentiality can be made clearer for the public.

Research implications

Studies of user feedback about specific pharmacy services continue to be important, particularly given the apparent gap between theoretical and actual uptake and acceptability of services. There is a need to conduct regular research on public attitudes to and usage of pharmacies for general health advice to track whether and how these change over time.

The resources available to us were sufficient to undertake a detailed search for non-peer-reviewed research in the UK which identified a number of good quality studies that substantially added to the evidence from pharmacy user feedback. It seems important that similar searches are undertaken in other countries so that the existing knowledge base is better documented.

Conclusions

Most users of community pharmacy-based public health-related services express a high level of satisfaction. There is a high degree of expressed interest among users in the availability of further information and advice from pharmacists, although the pharmacist is not seen as a primary source. If community pharmacies are to be used to their full potential, then actions to promote extending the public's awareness and acceptance of the pharmacist's role in giving advice will be needed. The findings of our review suggest that users are more likely to accept the community pharmacist's role as health adviser, at least initially, when related to medicines supply.

There is a need to consider privacy and confidentiality in giving advice to increase user satisfaction with these aspects. Further research will be needed to measure any change in premises development on the public's perception of the level of privacy in pharmacies.

Supplementary material

The following material is available from <http://www.blackwell-science.com/products/journals/suppmat/HEX/HEX274/HEX274sm.htm>.

Table S1 Details of peer reviewed evidence.

Table S2 Details of non-peer reviewed evidence.

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