

Original Research

# Public perceptions and experiences of the minor ailment service in community pharmacy in Scotland

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## Abstract

**Background:** The Minor Ailment Service (MAS) in Scottish community pharmacy allows eligible people to gain improved access to care by providing free treatment for self-limiting conditions.

**Objective:** To determine the perceptions and experiences of individuals using MAS and to quantify the potential impact on usage of other healthcare services.

**Methods:** A cross-sectional survey was conducted of patients accessing MAS across Scotland during June and July 2018. Questionnaire items included reasons for choosing treatment through MAS, which other services they may have accessed had MAS not been available, experiences of consultation, overall satisfaction, and perceived effectiveness of treatment. Those accessing MAS were given a study pack including an information sheet, pre-piloted questionnaire, and pre-paid return envelope. Participants had the option to consent to an optional one-week follow up questionnaire that focused on perceived effectiveness of treatment after seven days and any further access to healthcare services such as general practice, emergency departments or repeat pharmacy visits.

**Results:** There were 1,121 respondents to the initial questionnaire. Most reported 'convenient Location' as the main reason for their access to community pharmacy (n=748; 67.1%). If MAS had not been available, 59% (n=655) of participants reported that they would have accessed general practice for treatment of their minor ailment. Experience of consultations was also rated highly with all ten outcome measures scoring 'Excellent' overall. Satisfaction was reported positively with most participants reporting full satisfaction with the overall experience (n=960; 87.2%). At one-week follow up, 327 participants responded, over 85% (n=281) did not require further access to care to treat their minor ailment and 99.7% (n=326) said they would use MAS again.

**Conclusions:** Positive perceptions and experiences of those using MAS demonstrate a highly regarded service in terms of satisfaction and experience of consultation. The capacity for MAS to impact on the use of higher-cost healthcare services is evidenced through the number of participants who reported these services as a point of access to care should community pharmacy not be available. This national evaluation demonstrates MAS to be a positively experienced service and outlines the factors determining access for treatment of minor ailments.

## Keywords

Personal Satisfaction; Perception; Attitude to Health: Patient Acceptance of Health Care; Pharmacies; Community Pharmacy Services; Outcome Assessment, Health Care; Health Services Accessibility; Cross-Sectional Studies; Scotland

## INTRODUCTION

National Health Service (NHS) Scotland has described the necessity for delivering high quality and sustainable health services based on new models of community-based care.<sup>1,2,3</sup> The Minor Ailment Service (MAS) in Scotland provides local treatment and advice at no cost to the patient, for self-limiting conditions such as coughs, colds, gastrointestinal symptoms, or musculoskeletal pain.<sup>4</sup> MAS, established in 2006, is a core element of the Community Pharmacy Contract in Scotland which allows eligible patients to receive free treatment for self-limiting conditions.<sup>5,6</sup> The formulary-based approach to treatment

provides non-prescription medications and advice from a trained pharmacy-based team led by a qualified pharmacist. MAS, in Scotland, is open to those under the age of 16, under the age of 19 in full-time education, aged 60 years and over, receiving specific income-related support benefits, or with maternity, medical or pension exemption certificates. MAS shifts demand for treatment away from higher cost healthcare settings, such as general practice and accident and emergency, to the local community pharmacy contributing to easier and quicker access to healthcare, in most cases, without the need for an appointment.<sup>1,7</sup>

In Scotland, minor ailments comprise an estimated 5% and 13% of consultations at accident and emergency departments and general practice respectively, at an annual cost of GBP 1.1 billion.<sup>6</sup> The Scottish Health Council reviewed public perception of community pharmacy in 2013 and within this larger project, received some positive feedback from those who had accessed MAS.<sup>8</sup>

In the wider United Kingdom (UK), it has been shown that a reliance on higher cost healthcare services not only equates to a higher prescribing cost but also contributes to the workload and perceived burden for staff.<sup>9,10</sup> This not only limits access for patients with more serious conditions that could not be treated at a community pharmacy but

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contributes to the perceived burnout rates among general practitioners.<sup>11</sup> The current evidence base of clinical outcomes of pharmacy based management of minor ailments is critiqued to be limited and community pharmacists have reported concerns with their confidence in providing services beyond prescription provision.<sup>7,12</sup> However, a recent study conducted in the UK has shown that patients prefer community pharmacy staff to display professionalism and operate in a person-centred manner which would include those accessing MAS.<sup>13</sup> Systematic reviews of UK community pharmacy suggests appropriate treatment of minor ailments demonstrated by low rates of reconsultation and high rates of symptom resolution.<sup>14</sup>

MAS also exists internationally and, while there may be different means of service delivery and different structural features, the core standards remain consistent. Australia has recently shown that their MAS system provides better clinical outcomes than usual pharmacy care and has been shown to be a financially viable option for their community pharmacy services.<sup>15,16</sup> In Canada, the equivalent service, named Pharmacists Prescribing for Minor Ailments, was evaluated in the Saskatchewan province, and was found to be cost saving overall with improved access to care for the general public.<sup>17</sup> MAS has also been considered in other countries such as Ireland and New Zealand, indicative of the expansion of such a service to more countries in the future as they balance financial viability of healthcare with the increasing demands of access to care.<sup>18,19</sup>

Perception of MAS is restricted in the existing literature to the perspectives of staff and stakeholders, although, public perceptions of general pharmacy practice, preferences for self-care and professional advice and the management of minor illnesses have been reported.<sup>10,20,21</sup> Furthermore, it has the potential to provide the same standard of care as higher cost healthcare services to shift demand for the treatment of minor ailments towards community pharmacy.<sup>7</sup> The understanding of patient perceptions and experiences are necessary to demonstrate the capabilities of community pharmacy. It is also necessary to understand the informed reasoning of healthcare service choice and patient satisfaction to ensure that the services of community pharmacies in Scotland are properly utilised and pharmacy service models are implemented to maximise service uptake.

This project aimed to determine the perceptions and experiences of those who accessed MAS from community pharmacies in Scotland. This national cross-sectional evaluation of MAS provides a baseline to assess the future development and refinement of community pharmacy services, MAS.

## METHODS

### Design

This study was a cross-sectional survey with a one-week outcome follow-up.

### Questionnaire development

Questionnaire items for both the initial and one-week follow-up questionnaires were informed by the literature, previous service evaluation projects and Scottish public

health reports.<sup>8,21</sup> Think aloud testing was also conducted among members of the research team and international PhD students exploring face and content validity to ensure that the questionnaires asked questions in the right way and were appropriate to answer the overall study research questions.<sup>22</sup> Questionnaires were pilot tested in four pharmacies to ensure both the content of questionnaires and logistics of distribution, questionnaire return, and data entry were appropriate. These pharmacies were selected due to their diversity of setting, i.e. urban and rural, and relative deprivation based on site postcode of the Scottish Index of Multiple Deprivation.<sup>23</sup> Within the pilot, 228 patients were recruited from four community pharmacies to provide feedback and gauge the acceptability and accessibility of the questionnaire.

Initial questionnaire items were designed to elicit sociodemographics of participants (sex, occupational status, MAS eligibility, previous MAS use, and who they were accessing the service for), duration of symptoms of their minor ailment, their reasons for accessing community pharmacy services, which other services they thought they would have accessed had MAS not been available, experiences of the consultation (based on the CARE Measure), and overall satisfaction.<sup>24</sup> The one-week follow-up questionnaire asked if participants had accessed any further service for treatment of their initial minor ailment, whether they felt that their minor ailment had been treated effectively, if they would use MAS again, and whether they would recommend MAS to others.

Sociodemographics and duration of illness or symptoms were collected to gauge whether the sample population of this study was representative or transferable to the general population accessing community pharmacy in Scotland. Reasons for choosing to access community pharmacy services were asked as closed yes or no questions, as were the responses for which services they thought they would have accessed had MAS not been available. The CARE measure was used to measure patient perceptions of 'consultation and relational empathy' (CARE). Ten aspects of consultation and relational empathy such as 'really listening' and 'being interested in you as a whole person' were rated by patients on a five-point Likert scale ranging from 'poor' to 'excellent'. Overall satisfaction of the experience of using MAS was rated by patients from 1 to 10, with 1 representing 'Not at all satisfied' and 10 'Fully satisfied'. At follow-up participants were asked whether they felt their minor ailment had been effectively treated, if they would use the service again, and if they would recommend the service to others for treatment of minor illnesses.

Both initial and follow-up questionnaires were provided via a link to an online version using SurveyMonkey®, to promote response rates by improving access, alternatively patients were asked to return their completed printed version of the questionnaire by pre-paid post as soon after their pharmacy visit as possible. The optional follow-up questionnaire allowed further determination of which other healthcare services had been accessed or not required by ascertaining if any subsequent appointment was made to treat the initial minor ailment. Patients were asked whether they believed that their MAS treatment was

effective, whether they would use MAS again, and whether they would recommend the service to others.

### Recruitment

Community pharmacies were informed of the study by Community Pharmacy Scotland newsletters, social media updates and a blog on the membership website where they outlined the purpose and processes of the study. Every community pharmacy in Scotland (n=1,249) was eligible for inclusion and only two pharmacies actively opted out: pharmacies could opt out without giving a reason. An envelope containing 10 study packs - each with an information sheet, questionnaire, and pre-paid return envelope was sent to the remaining community pharmacies (n=1,247) from the start of June to the end of July 2018. An information sheet was included for community pharmacy staff which outlined the purpose of the study and asked staff to distribute to 10 consecutive patients accessing MAS who were willing to take part. This information was provided to encourage staff to distribute study packs consecutively to counter any distribution bias.

Up to 10 patients from each community pharmacy who received an item on MAS throughout June and July 2018 were eligible for recruitment. Each participant received the patient information sheet, initial questionnaire, and pre-paid return envelope; consent forms were, as agreed by the Ethical Review Committee, not included as consent was implied by completion and return of the questionnaire. All patients accessing MAS were eligible to take part in the study providing the pharmacy staff deemed they had adequate English language literacy and comprehension to complete the questionnaires. Patients were not incentivised to take part in the study. Questionnaires were either completed online or posted by participants to the primary researcher who sent a follow up questionnaire one week after their MAS consultation as self-reported in their initial questionnaire, to those who provided contact details. A one-week follow up was used due to the relatively quicker recovery time of minor ailments and a consideration for the increased likelihood of recall bias should the follow-up occur at a later point.

If participants wanted to be included in the follow-up study, they provided either a home postal address or e-mail address to receive the second questionnaire by post or electronically, respectively. The follow-up questionnaire was posted, or emailed, to reach the patients one week from the date of their reported pharmacy visit as documented in their initial questionnaire.

### Analysis

Questionnaire responses were entered and analysed using IBM SPSS version 25. Frequency counts were performed for single and multi-response questions.

### Ethics approval

Ethical approval was granted from NHS Scotland (South Central – Hampshire A Research Ethics Committee: 18/SC/0229), each of the fourteen Scottish geographical health boards and University School Ethical Review panels at the Robert Gordon University and University of Strathclyde were obtained.

## RESULTS

One thousand, one hundred and twenty-one questionnaires were returned (Table 1), with representation from all geographical health boards in Scotland (n=14; 100%). Of those who responded, most participants had accessed MAS before (n=1002; 89.4%), with 103 new users (9.2%) and 12 unsure (1.1%) if they had previously accessed the service.

Symptoms of participants' minor ailments that had led them to access MAS had lasted between 0 days and 60 days with a mean of 4.6 (SD=6.6) days prior to accessing the service.

Participants were asked to indicate why they had accessed care through MAS (Table 2). Several reasons informed the choice of using MAS with 'Convenient location' (n=748; 67.1%), 'No appointment needed' (n=716; 64.3%), and 'Good relationship with the pharmacy already' (n=700; 62.8%) the most commonly reported.

Participants were asked if MAS had not been available, which other services they would have used (Table 3).

Table 1. Patient demographics (n=1,211)				
		n	%	
Sex	Female	861	76.8	
	Male	251	22.4	
	Undisclosed	9	0.08	
Occupational Status	Employed full time	384	34.6	
	Employed part time	349	31.5	
	Unemployed	131	11.7	
	Retired	349	31.1	
	Full-time carer	32	2.9	
	Full-time education	39	3.5	
	Part-time education	2	0.2	
	Rather not say	13	1.2	
MAS Eligibility	<16 years	400	35.7	
	Full time education and < 19 years	38	3.4	
	Over 60 years	412	36.8	
	Pregnant	41	3.7	
	NHS Tax Credit	79	7	
	Receiving income support	89	7.9	
	Rather not Say	62	5.5	
Minor Ailment	Allergy	328	29.3	
	Skin	183	16.3	
	Gastrointestinal	123	11	
	Infection	113	10.1	
	Respiratory	90	8	
	Musculoskeletal pain	82	7.3	
	Teething	59	5.3	
	Head lice	28	2.5	
	Headache	26	2.3	
	Blocked ears	19	1.7	
	Undisclosed	70	6.2	
	Previous MAS Access	Yes	1,002	89.4
		No	103	9.2
Unsure		12	1.1	
Undisclosed		4	0.3	
Accessing MAS for	Themselves	647	57.7	
	A child	420	37.5	
	Another adult	47	4.2	
	Undisclosed	7	0.6	



Table 2. Reasons for accessing treatment via community pharmacy services (n=1,211)

Reason for accessing MAS	n	%
Convenient location	748	67.1
No appointment needed	716	64.3
Good relationship with the pharmacy	700	62.8
Ailment not serious enough to see a GP	660	59.2
Have used mas before	620	55.7
Didn't have to travel far	468	42
Seen/ heard to use 'Pharmacy First'	357	32
Open when other services are not	172	15.4

Participants were given the option to select more than one option to fully explore both services and self-care options. The two most frequent responses were 'GP Practice' (n=655; 59.0%) and 'Bought Medicines Independently' (n=629; 56.7%) with other responses reported as 10.6% (n=117) or less.

All ten statements comprising the CARE measure scored a median response of 'Excellent', demonstrating a positive perception of the experience in the measured aspect of consultation and relational empathy (CARE): making you feel at ease, letting you tell your story, really listening, being interested in you as a whole person, fully understanding your concerns, showing care and compassion, being positive, explaining things clearly, helping you take control, and making a plan of action with you (Table 4).

With regards to overall satisfaction, most participants scored MAS at 10 denoting full satisfaction (n=960; 87.2%), with the lowest scoring at 5 (n=4; 0.4%). Satisfaction responses were heavily skewed with both a median and interquartile range of 10.

A one-week follow-up questionnaire was sent to those who opted in for this stage by means of contact details participants provided on the initial returned questionnaire (n=514; 45.9%) with an overall return of 327 questionnaires (29.2%). Follow-up at one week from the reported MAS pharmacy consultation was used to determine if

Table 3. Other services patients would have accessed (n=1,211)

Other services that would have been used	n	%
GP Practice	655	59.0
Bought medicine independently	629	56.7
NHS 24	117	10.6
Online advice	114	10.3
Advice from family/ friend	111	10.0
No other service	37	3.3
Accident & Emergency	23	2.1

participants had used any further services to treat their minor ailment (Table 5).

Most MAS patients (n=279; 85.6%) reported that their minor ailment had been effectively treated, that they would use MAS again (n=326; 99.7%) and would recommend others to visit their community pharmacy for treatment of minor ailments (n=324; 99.4%).

## DISCUSSION

This is the first study to demonstrate the national experiences and perceptions of patients accessing MAS via community pharmacy in Scotland. Overall satisfaction was very high and remained consistently so across the minor ailment groupings. This is in line with the satisfaction reported by the Scottish Health Council and wider in the UK.<sup>8,13</sup> The reasons for selecting MAS for treatment demonstrated the perceived advantages of accessing and receiving treatment from a community pharmacy with 'Convenient location', 'No appointment needed' and 'Good relationship with the pharmacy already' chosen most often.

Participants reported a potentially high reliance on general practice with 59% of respondents reporting that they would have visited their GP if their pharmacy was not offering MAS. This study demonstrates the current potential impact of access to higher cost healthcare providers which already report high levels of workload and perceived staff burden.<sup>9,10</sup> This is further enforced with the low percentage of respondents who required further

Table 4. CARE measure data (n=1,211)

CARE Measure Statement (%)	Poor	Fair	Good	Very Good	Excellent	N/A
Making you feel at ease (introducing him/herself, explaining his/her position, being friendly and warm towards you, treating you with respect; not cold or abrupt)	0.4	1.4	5.9	20.4	69.8	2
Letting you tell your 'story' (giving you time to fully describe your condition in your own words; not interrupting, rushing or diverting you)	0.3	0.7	5	22.7	70.1	1.3
Really listening (paying close attention to what you were saying; not looking at the notes or computer as you were talking)	0.1	1.2	4.4	20.3	72.5	1.5
Being interested in you as a whole person (asking/knowing relevant details about your life, your situation; not treating you as "just a number")	0.4	1.8	6.1	19.4	68.3	4
Fully understanding your concerns (communicating that he/she had accurately understood your concerns and anxieties; not overlooking or dismissing anything)	0.2	1	5.8	18.6	71.6	2.9
Showing care and compassion (seeming genuinely concerned, connecting with you on a human level; not being indifferent or "detached")	0.5	1	5.2	18.6	72.8	1.9
Being positive (having a positive approach and a positive attitude; being honest but not negative about your problems)	0.2	0.9	4.3	21.3	70.8	2.5
Explaining things clearly (fully answering your questions; explaining clearly, giving you adequate information; not being vague)	0.4	0.4	5.1	19.2	71.9	3.1
Helping you take control (exploring with you what you can do to improve your health yourself; encouraging rather than "lecturing" you)	0.7	1	4.6	20.1	59.7	13.8
Making a plan of action with you (discussing the options, involving you in decisions as much as you want to be involved; not ignoring your views)	0.6	1.4	4.9	17.2	58.7	17.2

N/A: does not apply.



Table 5. Other services patients had accessed at follow up (n=327)		
Follow Up Use of Services	n	%
No other service	281	85.9
GP Practice	21	6.4
Advice from family/ friend	10	3.1
Bought medicine independently	9	2.8
Online advice	5	1.5
NHS 24 (NHS Telephone Healthline)	1	0.3
Accident & Emergency	0	0

access to care to treat their minor ailment. Most patients reported effective treatment through MAS which was confirmed at follow-up as was further access to healthcare services which demonstrated a minority of patients accessing further services to treat their minor ailments. This shows a constant standard with high levels of symptom resolution reported in 2013.<sup>14</sup>

Perceptions of the consultation experience (using the CARE measure) were consistently reported as high. The positive perceptions and experiences of those who access the service demonstrate that the treatment of minor ailments at community pharmacies has the potential to fulfil the current national requirements for sustainable, high quality access to care and diversion from higher cost healthcare services.

#### Strengths and limitations

The study provides data not previously documented for the national perceptions and experiences of those using MAS with representation from all Scottish geographical health boards. With only two community pharmacies in Scotland not consenting to take part, this study showed high levels of buy-in from the pharmacy profession. This representational data enriches the knowledge and understanding of MAS. The use of a validated assessment tool<sup>21</sup> and inclusion of follow-up responses recognise the recent recommendations on methodological considerations in the evaluation of minor ailment services.<sup>7</sup>

Limitations of the study should be recognised as there may have been biases in self-report responses due to the nature of social desirability or the rating of a service that provides free care. The participants may have felt obliged to rate a service highly through receiving care at no personal cost.

The percentage response rate of study packs distributed is unknown as this would require accurate recorded detail of which pharmacies received their packs and how many of these were distributed. It should be recognised that the scale of the project left control of distributing study packs with the community pharmacies, who may have selected patients of whom they would expect to give positive feedback of MAS.

As recruitment occurred during June and July, those who participated in the study may have been more likely to present with seasonal conditions, such as hay fever, compared to other times of the year. Patients may also have been staying away from home on holiday when participating so may have been unfamiliar with the community pharmacy or community pharmacies may have been reluctant to give a study pack to unfamiliar patients. As different conditions present at different times of the

year, it should be noted that this study captured data demonstrative of access to MAS in summer.

As participants had to actively volunteer to participate in the follow-up of the study, this may have impacted on recruitment. Conversely, being presented with one questionnaire initially may also have impacted initial recruitment at baseline.

#### Implications for research and practice

A national evaluation of MAS had not previously been undertaken in Scotland but positive experiences of consultation and satisfaction have been reported in localised studies.<sup>9,12</sup> Shifting the onus of minor ailment treatment towards community pharmacy can alleviate pressure on appointments in general practice and this has been demonstrated in the Inverclyde region of Scotland where additional prescribing resources at community pharmacies an average of 5 hours' direct GP time per practice per week.<sup>9</sup> This study reports, on a national scale, that 59% of those accessing MAS would have accessed general practice had the community pharmacy service not been available. Given recent economic estimates, the overall cost of treatment for each minor ailment from community pharmacy is GBP 53.04 less than that of general practice.<sup>25</sup> With each visit to a community pharmacy for treatment of minor illness in place of general practice reducing the cost of care by over GBP 50, MAS provides a potentially significant saving for NHS Scotland. However, the funding model for community pharmacy may need to be revised considering these findings.

This study has captured the national experiences of those accessing treatment on MAS and demonstrates high levels of satisfaction and perceived quality of consultation, regardless of the presenting minor ailment across all geographical health boards in Scotland. Such satisfaction of the service coupled with the reduction in accessing higher cost services exemplifies the contribution of MAS towards minimising health inequalities and improving access to care, encouraging the improved utilisation of pharmacy services. The reported reasons for accessing community pharmacy for treatment should also be considered for future refinement of signposting those with minor ailment conditions away from settings such as general practice to promote equal access for healthcare.

These findings should be considered in future assessment of the capacities of community pharmacy practice and used as a baseline to monitor changes in patient experience and satisfaction following future refinement of the service. The proposed Pharmacy First Scotland initiative will widen eligibility for free treatment for minor ailments and potentially shift public perception of the treatment, expertise, and capacity of community pharmacy in Scotland.<sup>26</sup>

#### CONCLUSIONS

Community pharmacy continues to evolve to meet the healthcare needs of the population in Scotland and elsewhere with services like MAS are making an ever growing contribution. The evaluation of these services is critical for the informed development and refinement of

healthcare services. MAS in Scotland is well received with high overall satisfaction and positive experiences. The lower overall cost of access for MAS shows the economic viability of the service. As these types of service emerge, it is important to continue evaluation to demonstrate national value and to re-evaluate the funding models for healthcare services.

## CONFLICT OF INTEREST

None.

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