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The extent and nature of addiction to medicines in Cheshire and Merseyside

Geoff Bates, Madeleine Cochrane, Marissa Pendlebury and Adam Mackridge

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CPH, Faculty of Education, Health and Community, Liverpool John Moores University, Henry Cotton Campus, 15-21 Webster Street, Liverpool, L3 2ET
0151 231 4442 | g.bates@ljmu.ac.uk | www.cph.org.uk | ISBN: 978-1-910725-24-5 (web)

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Executive Summary

Addiction to medicines (ATM) is costly to individuals and the health care system, especially when there are limited tailored prevention and treatment interventions available and accessible to those who need them. Understanding how ATM is viewed and encountered by health professionals is likely to play an insightful role in furthering understanding of ATM as well as finding ways to prevent and treat ATM at a local and national level. The aim of this study was, therefore, twofold: (1) to investigate health professionals' experiences of ATM and (2) their understanding of optimally identifying and addressing ATM.

GP and pharmacy based staff from eight local authorities in Cheshire and Merseyside took part in the research by completing an online survey including multiple choice and open ended questions on the extent and nature of addiction to psychoactive medicines. In total, 76 participants' survey responses were analysed. Key findings included:

Prevalence and nature of addiction

- A large majority of participants (92%) agreed that ATM is an important health issue. Participants indicated that they frequently suspected addiction with two thirds (66%) reporting that they suspect a patient is developing an addiction on prescription only medicines, and nearly half (46%) suspecting addiction to medicines purchased over the counter, on a weekly or more frequent basis.
- It was identified that patients were most frequently developing addictions on anxiolytics and hypnotics, as well as both strong and weak opioid analgesics. Less frequently identified but still encountered addictions were drugs including anti-epileptics and neuropathic analgesics, sedating antihistamines, antitussives and stimulants.

Health professional responses to ATM

- The majority of participants described feeling confident in: identifying ATM (76%), speaking with suspected/affected patients (80%) and refusing medication (86%) where necessary. Confidence was greater amongst pharmacy compared to GP staff. Participants described several ways of identifying patients with ATM, such as noticing early or frequent prescription requests, patients giving excuses of having lost previous prescriptions and patients becoming aggressive when medication is not available.
- In comparison to the frequency that addiction was identified, participants reported taking action infrequently when they suspected a patient was developing ATM. A number of barriers were identified to addressing ATM include; time pressures, feeling unsure as how to talk about ATM, not wanting to adversely affect the patient's other health conditions, and having limited knowledge or ability to refer patients on to

appropriate support services. It was recognised that denying patients their medication may be ineffective, especially as this could negatively affect patients' wider health problems (e.g. chronic pain).

Supporting addiction to medicine

- Almost half (47%) of participants stated that current treatment options for ATM are not meeting patient need, especially for those patients who don't identify themselves as having a drug-related problem. Some GP staff reported that taking more responsibility of patients with ATM was beyond their remit and resources.
- Participants acknowledged several ways to improve identification and support offered to patients with ATM. These centred on offering more holistic modes of support (for example, therapeutic intervention not requiring medication, or a peer-mentoring service) and increasing access to specialised staff training and developing educational materials.

Next Steps

1. Establishing clear local treatment pathways that enable patients to access the support they need is required. It is beyond the scope of this study to make firm recommendations on what these treatment pathways should be, but a joined up approach to treatment for medicine addiction between front line health professionals, pain specialists and drug treatment providers with expertise in addiction is likely to benefit patients. In developing these pathways, it is important to recognise the diversity of the individuals affected by ATM and their routes to addiction problems.
2. As part of developing an approach to treatment it will be useful to explore ways to support GP and pharmacy staff to identify and work with individuals with addiction to medicines, while acknowledging the limits of their resources. Health professionals who want to continue to support treatment of patients should be supported to do so and all health professionals should be easily able to refer patients to treatment.
3. Create opportunities for health professionals to engage in specialised training that addresses how to not only identify patients with addiction to medicines, but also how to confidently tackle this issue, refuse medication where appropriate (and recognise where this may not be the best approach), provide tailored advice and refer them on to appropriate local services. It is important that where addiction is identified, health professionals have the resources to tackle this issue.
4. More research is required in order to understand and address the needs of those individuals affected by ATM. Research into patient awareness and concern about addiction, motivations to seek support and barriers to seeking support is likely to be particularly useful. Evaluation of local treatment pathways in Cheshire and Merseyside will provide important examples of good practice and identify where there are particular treatment gaps.

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Introduction

Addiction to medicines (ATM) can be defined as the misuse of or dependence on prescription-only (POM) or over-the-counter (OTC) medicines [1]. Attention to and concerns around ATM has been growing since the 1980s [2]. A recent consultation concluded that the UK's current clinical guidelines for drug misuse and dependence need to be updated and it is anticipated that a set of new guidelines will address significant changes in the sector which includes the increase in attention to ATM [3].

England's drug strategy (2010) includes POM and OTC medicines in its ambition for tackling drug use and dependency [4]. In 2010, the Department of Health commissioned two reports to investigate the extent and nature of ATM and the effectiveness of current responses. The first report by the National Addiction Centre (NAC) consisted of a structured international literature review which aimed to provide evidence of the changing use of POM and OTC medicines [5]. The second carried out by the National Treatment Agency (NTA) investigated the configuration and commissioning of treatment services for ATM [1]. Neither report nor a further comprehensive literature review [6] from 2013, has been able to determine the extent and nature of ATM in England. However, all three claim that those who are misusing or dependent on POM or OTC medicines are considerably underrepresented at drug and alcohol treatment services.

In 2013 national leadership for preventing and treating drug misuse (including ATM) was transferred from the NTA for Substance Misuse to Public Health England. While drug treatment services are acknowledged as having an important role in tackling ATM, there is an ultimate aim to enable individuals to become free from their dependence, to recover fully and live meaningful lives [7]. Public Health England and local authorities also highlight the requirement commissioners of these services have in understanding specific needs of different population groups [8]. The latest report in 2013 from the National Drug Treatment Monitoring System (NDTMS) tells us that the primary drug for which clients are seeking treatment for is opiates (47%) and opiates & crack (32%). Although just 886 of clients in the report were identified as approaching treatment for addiction to prescription medicines, this does not suggest that individuals with addiction to prescription medicines is an insignificant issue. Indeed, there may be a significant proportion of clients in the UK who experience addiction to prescription medicines yet fail to identify themselves with relevant treatment and support services. Furthermore, the report identified that 1,312 (1%) of clients were addicted to benzodiazepines [9]. As a related concern, the All Party Parliamentary Report claimed that there could be up to 1.5 million people dependent on benzodiazepines in the UK [10]. Trend data from the Office for National Statistics (ONS) also show that deaths involving benzodiazepines (as stated on a person's death certificate), while not necessarily the primary cause of mortality, have almost doubled between 2006 and 2013 [11].

It has been identified that those who are misusing or are dependent on OTC medicines are a 'hard to reach' group [12]. For example, during 25 interviews with 12 males and 13 females aged 20- 60 attached to an online support group, it was recognised that participants did not see themselves as being the same as users of illicit drugs, often due to having stable jobs and a high level of education. Concurrently, most individuals felt personally responsible for their addiction and perceived current treatment options for ATM as being unsuitable for their particular needs. Individuals further reported going to great lengths to hide their problem and being apprehensive of seeking professional support, often due to anticipating stigma and having their addiction exposed to family, friend and colleagues. Additional barriers to accessing support, apart from lack of provision of specialised treatment services for ATM, included healthcare professionals' own perceptions that ATM was a less severe issue compared to other addictions and that most individuals with ATM have the capacity to overcome it by themselves. However, this limited view disregards how ATM is a growing

problem and not all individuals affected may have the self-efficacy or resources to overcome it on their own. In light of these findings, greater awareness of the addiction potential of medicines is needed for both the public and health professionals, along with more specialised support services that can be effectively tailored and presented to potential users appropriately. Given the lack of empirical evidence on treatment programmes specific for ATM, more reviews of such interventions need to be undertaken, and ideally those involving both quantitative and qualitative methods in order to gain a deeper insight into what elements and mechanisms make them most or least effective.

The NDTMS only collects data on those who are accessing treatment services [8]. The NTA's 2011 review draws largely on NDTMS data and is therefore limited in its ability to capture data on the extent and characteristics of those who are addicted to POM or OTC medicines but not accessing services [1]. Similarly, the characteristics of those who are at risk of drug misuse as described in the Royal College of General Practitioners (RCGP) factsheet series are limited in their applicability, as most sources of evidence used derive from the US [13]. A qualitative study in the UK which looked at the experiences of those misusing OTC medicines found that most people had originally started taking the medicine (which they later became addicted to) for genuine medical reasons rather than for experimentation [12]. PHE's guidance on commissioning treatment for ATM claims within the pool of those who are misusing POM and OTC medicines, individuals may require different treatment responses as they have overlapping yet distinct explanations for their use. Explanations for use include, taking medicines, as: an alternative or supplement to illicit drugs; a commodity to sell; a way to relieve real or perceived physical or psychological symptoms; or a result of developing an iatrogenic addiction[8].

NDTMS data trends can provide an indication as to which medicines are increasing in circulation nationally and locally. For instance, the NTA's review highlights that NDTMS data shows clear regional differences in prescribing patterns, this includes the finding that for a number of years prescribing rates of benzodiazepines have been greatest in the north-west of England [1]. Analysis of electronic prescribing data (ePACT) also informs on prescribing patterns in primary care, for instance ePACT shows that between 2011 and 2013 prescribing rates for pregabalin and gabapentin have risen by 53% and 46% respectively [14]. Similarly, the Health and Social Care Information Centre (HSCIC) highlights that prescriptions for tramadol have increased by 29% over the last five years [15, 16], while the Office for National Statistics (ONS) reports an increase in deaths mentioning tramadol, since 1997 [11]. By contrast, the long term trends for deaths mentioning paracetamol and other analgesics have been decreasing since 2004 [11].

Cooper and colleagues argue that there is a need to raise awareness of the addiction potential of OTC medicines amongst medical prescribers, pharmacists and the public [12]. Currently in the UK there are a number of courses and resources (including e-learning) focusing on addiction to POM and OTC medicines, which provide further training and support to qualified GPs, Pharmacists and other healthcare professionals. These include those hosted by the Royal College of General Practitioners (RCGP) Substance Misuse and Associated Health (SMAH), the Centre for Pharmacy Postgraduate Education (CPPE) and Substance Misuse Management in General Practice (SMMGP).

This project

This work was commissioned by the Cheshire and Merseyside Public Health (ChaMPs) Intelligence Network.

The overall aim of the study was to investigate health professionals' experiences around addiction to psychoactive medicines and to provide evidence on how best to support people with ATM in Cheshire and Merseyside. This included:

- Examination of the frequency that health professionals encounter individuals with addictions to medicines
- Identification of the current mechanisms by which health professionals identify addictions to medicines, and their experiences of tackling these
- Identification of approaches to improve the identification and management of addictions to medicines

Where possible, it was agreed that outcomes would be analysed by Local Authority area and place of work (within General practices or pharmacies).

Methods

An online survey was developed to be disseminated to staff based within GP services and pharmacies across Cheshire and Merseyside. All nine local authorities in Cheshire and Merseyside were invited to take part in the research, however Liverpool Local Authority chose not to take part. Within each authority, an individual was identified to lead dissemination of the survey in their area. The survey was sent to GP services and pharmacies in May 2015, and ran for six weeks.

Results

In total 79 participants from GP practices and pharmacies submitted survey responses. Three participants were excluded due to providing insufficient amount of data, giving a total sample of 76. The characteristics of the sample are summarised in Table 1¹. Although Liverpool Local Authority chose not to take part in the investigation, two participants still identified themselves as working in this area.

Table 1: Characteristics of the sample

Local authority		Years qualified		Training regarding addiction to medicines		Occupation setting		Gender	
Response	%	Response	%	Response	%	Response	%	Response	%
Did not answer	22	Did not answer	21	Did not answer	51	Did not answer	21	Did not answer	20
S Helens	21	Less than 10 years	21	Specific course or training	16	General Practice ¹	50	Male	43
Knowsley	20	Between 10-19 years	13	Self-study (e.g. online, conference)	8	Pharmacy ²	29	Female	37
Sefton	17	Between 20-29 years	20	No specific training	25				
Other ³	20	over 30 years	25						

¹ Included General Practitioner n=34, General Practitioner specialising in substance misuse n=1, Nurse Prescriber n=3

² Included Pharmacist n=19, Dispenser n=1, Pharmacy Technician n=2

³ Other authority = Cheshire East (n=7), Liverpool (n=2), West Cheshire (n=1), Wirral (n=5)

Extent of addiction to medicines

Nearly all (92%, n=69/74) respondents strongly agreed or agreed that ATM is currently an important health issue. There was no differences between responses when analysed by demographic information.

Participants were asked how frequently they suspect that patients² are developing an addiction to POM and OTC medicines, and how frequently someone admits this to them. Participants indicated that they frequently suspected addiction with two thirds (66%, 48/73) reporting that they suspect a patient is developing an addiction on POM, and nearly half (46%, 31/68) suspecting addiction to OTC medicines, on a weekly or more frequent basis.

¹ Some participants did not answer all questions in the survey, choosing to miss out some questions or not provide information about their place of work. Throughout this analysis, percentages presented relate to the number of participants who answered that question and not the overall sample. The number who answered the question which the finding refers to is provided.

² The term 'patients' is used as an all-encompassing term to include both patients and customers in the GP and pharmacy setting

Small proportions of the sample identified that patients admitted to them addiction to POM (12%, 9/75) and OTC medicines (11%, 8/70) on a weekly or more frequent basis.

Figure 1: Frequency that participants suspect patients have an addiction to medicines (n=70)

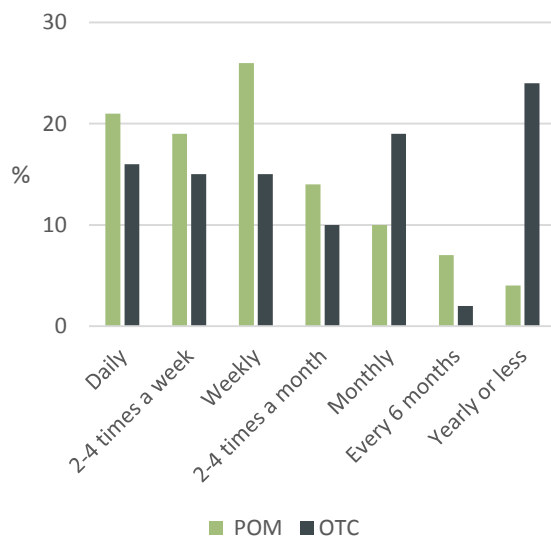
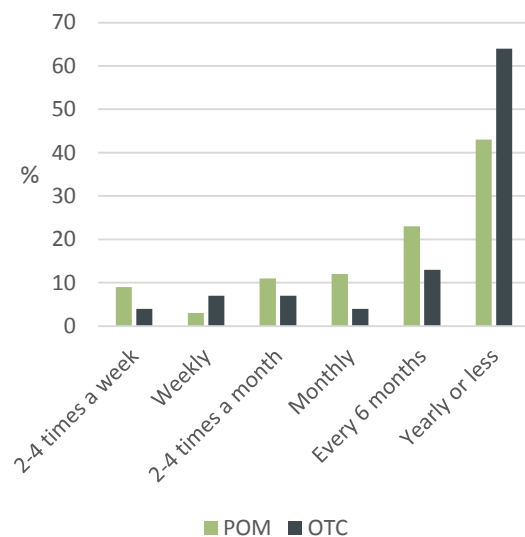
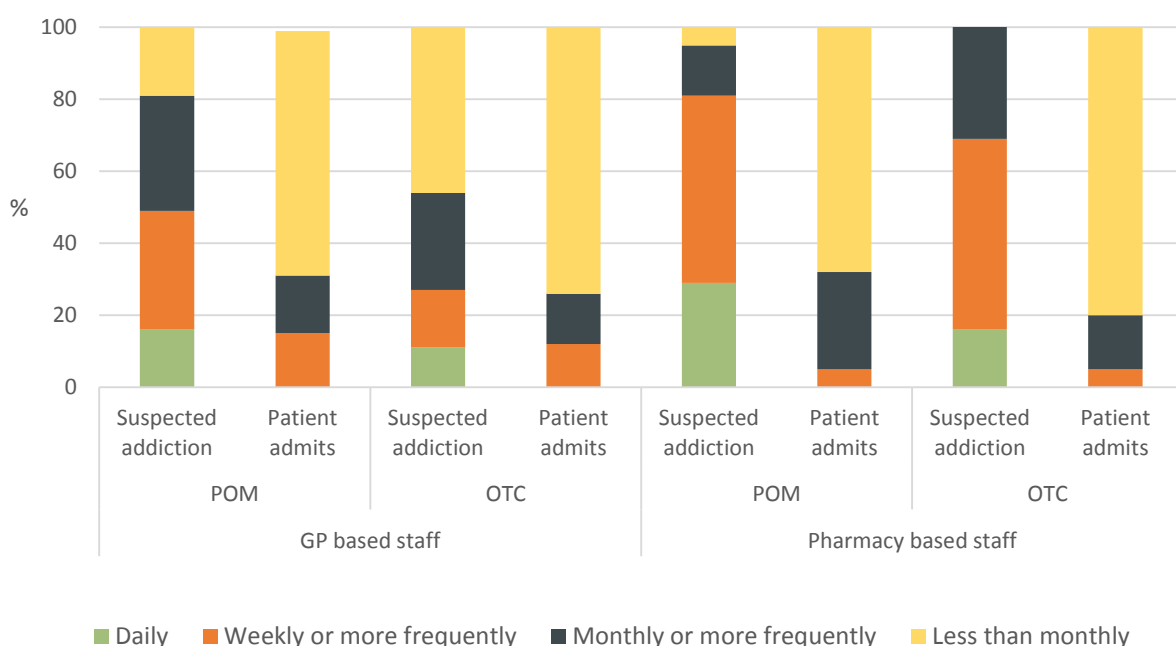


Figure 2: Frequency that patients admit to participants that they have an addiction to medicines (n=65)



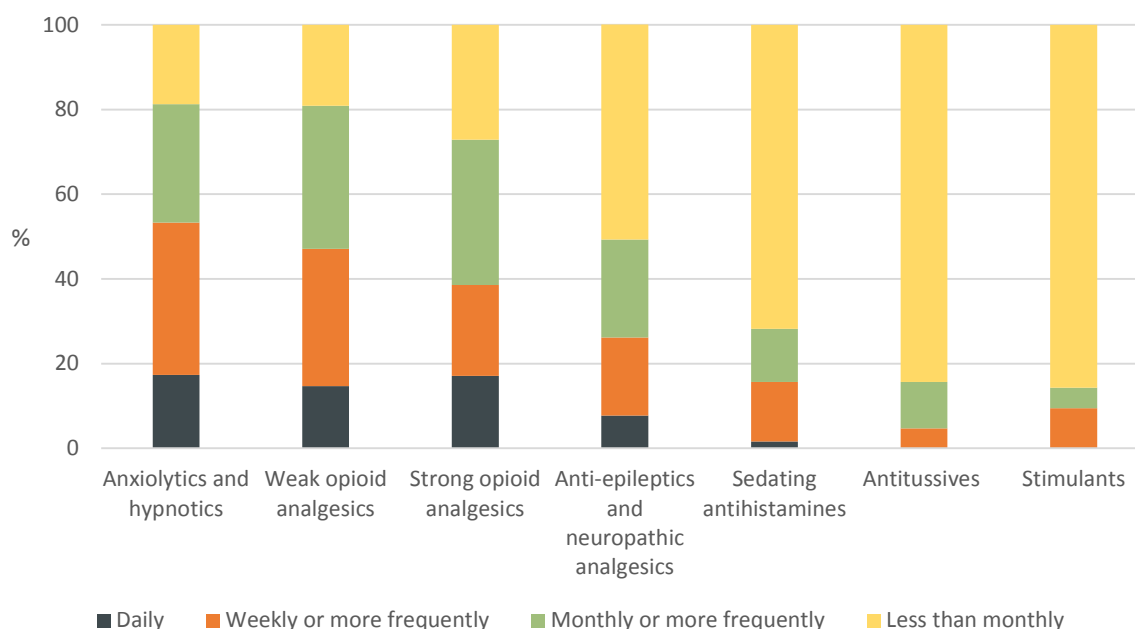
Pharmacy staff suspected more frequently that a patient is developing an addiction on medicines than GPs, however, there was no major difference in the number of patients seen admitting that they have an addiction to medicines (Figure 3).

Figure 3: Frequency that participants suspect addiction to POM & OTC medicines and frequency that patients admit to participants that they have an addiction, by occupation of participant (n=60)



Participants also reported the frequency that they suspect a patient is developing an addiction on specific medicine groups (Figure 4). The groups where addiction was most frequently suspected included anxiolytics and hypnotics and both strong and weak opioid analgesics, where approximately 40% or more participants reported suspecting addiction on a weekly or more frequent basis. One quarter of participants reported suspecting addiction amongst patients on a weekly or more frequent basis to anti-epileptics and neuropathic analgesics, while addiction on other medicine groups was suspected on a less than monthly basis by the majority of participants.

Figure 4: Frequency that participants suspect addiction amongst their patients, by medication group (n=70)



Where participants indicated that they suspected addiction to a medication on a more frequent than monthly basis, they were asked to describe the characteristics of the patients that they suspected as having addiction to these medicines. For most medicines outlined, participants observed that addiction could cut across all ages and gender. ATM was noted to affect individuals who appeared 'normal', including those who were well-educated. It was also inferred that affected individuals are likely to have current or past issues related to substance abuse, and/or negative life circumstances/ trauma that make them particularly vulnerable to ATM. Nevertheless, certain populations groups were suspected as being addicted to some medicines more than others. Classifications of drugs and relevant examples provided in participants' responses are shown in Appendix A.

Anxiolytics/ hypnotics (n= 55)

Both health professional groups suspected addiction to mainly affect middle-aged males and older females (e.g. usually over >65), as well as individuals experiencing chronic pain and poor mental health, such as depression and anxiety. Pharmacy staff additionally observed that teenage males also used them to seek pleasure or pain relief.

Strong opioid analgesics (n= 36)

Participants reported suspecting middle aged individuals and those presenting with chronic pain, including fibromyalgia in females and back pain for males, of misuse of strong opioid

analgesics. Pharmacy staff further suggested that addiction was commonly suspected amongst young men who were also addicted to illegal substances.

Weak analgesics (n= 44)

While GP's suspected addiction to weak opioid analgesics to affect 25-55 year olds, notably individuals with depression, poor mental health or history of abuse and/or imprisonment, pharmacy staff mainly suspected such an addiction in males aged between 20-30 or females aged 30-40.

Anti-epileptics/anticonvulsants and neuropathic analgesics (n= 22)

GP staff mainly described individuals with suspected addiction to these medicines as having chronic pain, depression, anxiety and past experience of substance misuse. Pharmacy staff observed that suspected individuals tended to be those making subjective complaints like nerve pain or as having experienced life trauma or an accident (e.g. a car accident).

Antitussives (n= 4)

GP staff regarded individuals addicted to antitussives as more likely to be middle-aged drug users and/or individuals out of prison. Suspicion was also more common among females with chronic pain. Pharmacy staff on the other hand tended to suspect addiction to antitussives across a wide range of individuals.

Stimulants (n= 7)

Patients suspected of being addicted to stimulants were more likely to be young people who were seeking pleasure and engaging in risky behaviour. Misuse was suspected as most predominant amongst young males with concurrent use of street drugs and/or history of alcohol abuse.

Sedating antihistamines (n=11)

Participants described suspecting middle aged and older individuals with sleeping problems as being addicted to sedating antihistamines (e.g. diphenhydramine). In particular, such individuals were identified as likely to be having problems relating to disruptive shift-working patterns and appearing visibly unhealthy (e.g. overweight or obese).

Other medications

Participants were asked to list other medications, including those of a non-psychoactive nature, which they were concerned about. For GP staff, additional substances that were suspected as causing problems with addiction included pregabalin, tramadol, co-codamol, cyclizine and TCA, as well as non-psychoactive drugs such as orlistat (used in weight management) and laxatives. Pharmacy staff further reported cyclizine, antidepressants, paracetamol, neurofen plus (Ibuprofen and codeine), ibuprofen and aspirin as a concern. Pharmacy staff also frequently referred to laxatives as being a common concern that was not being adequately addressed.

Identification of addiction to medicine

Some participants (n=60) reported scenarios that alerted them as to whether their patients might be addicted to medicines, including:

- Frequent, and often early, prescription requests for potentially addictive medications, notably in their strongest forms at higher dosages (n=56)
- Patients displaying certain emotional and behavioural characteristics, such as appearing anxious, frustrated or aggressive when their medication was unavailable or not on time (n=20)

- When patients gave excuses, notably of having 'lost' their previous prescription (n=12)
- Repeated requests for potentially addictive medication despite not responding to treatment or having no actual diagnosis by a medical professional (n=9)
- Patients acting in a suspicious manner and poor ability to interact with staff (n=7)
- Reluctance from patients to change or reduce their medication (n=4).
- Patients frequently checking whether medication was ready (n=4)
- Patients having an unhealthy or neglected appearance (n=3).
- Referring to medication as an urgent "need" (n=3)
- Going to different pharmacies/doctors for medication (n=3)
- Patients knowing the price of certain over the counter medicines without asking (n=2).

Confidence identifying addiction

Over three quarters of participants felt 'very' or 'fairly' confident in identifying individuals who are developing an addiction (76%, n= 47/62), initiating a conversation (80%, n=50/63) about this and refusing access (86%, n=54/63) to medicines where appropriate, with small proportions indicating that they did not feel confident in these areas. Figure 5 provides a breakdown of these responses.

GP staff who felt either 'very' or 'fairly' confident were often those who had received specialised training, and had several years' experience addressing needs of addicted patients. Confidence levels depended on the characteristics of the patient and how well GPs knew them, alongside patients' willingness to discuss the topic of addiction. Factors that limited GP's confidence included pressure to meet many other patients' needs in a short space of time. Pharmacy staff identifying as 'very' or 'fairly' confident perceived themselves as having a role in helping service users. However, confidence was marred by feeling unable to refer service users to specialised forms of support, which was seen to be the responsibility of GPs and specialised drug services.

Participants who didn't feel confident (those identifying themselves as not confident or unsure about their level of confidence) often described fearing that the individual might become aggressive. This limited confidence in terms of communicating effectively with individuals suspected of addiction and providing them with support. GPs with low confidence feared that they would be blamed for providing inaccurate or unhelpful advice, while pharmacy staff lacking in confidence perceived that customers would simply purchase medication from other pharmacies if issues surrounding ATM were raised with them. Furthermore, pharmacy staff described that their confidence is reduced by the fact that they are not able to help service users with their wider health concerns. For example, some professionals emphasised that helping patients effectively requires additional support with their mental health problems and negative life-circumstances – which may be beyond the remit of their current expertise or require other services/resources that were inaccessible to them.

Table 2: Confidence identifying addiction

	GP (n=38) n (%)	Pharmacy (n=22) n (%)
Very confident	4 (11)	4 (18)
Fairly confident	25 (66)	13 (59)
Unsure	4 (11)	2 (9)
Slightly confident	3 (8)	0
Not confident	2 (5)	3 (14)

Responding to addiction to medicines

Participants were asked how confident they felt i) initiating a conversation with individuals they suspected were developing an addiction and ii) refusing access to medication (Figure 5).

Responses from GP and pharmacy-based staff were similar although pharmacy-based staff were less likely to report being confident in initiating conversations where they suspected addiction (Table 3). There was evidence that a minority of both GP and pharmacy-based staff do not feel confident taking action when they identify an addiction (Table 4).

Figure 5: Level of confidence identifying addiction to medicine and taking action about addiction (n=70)

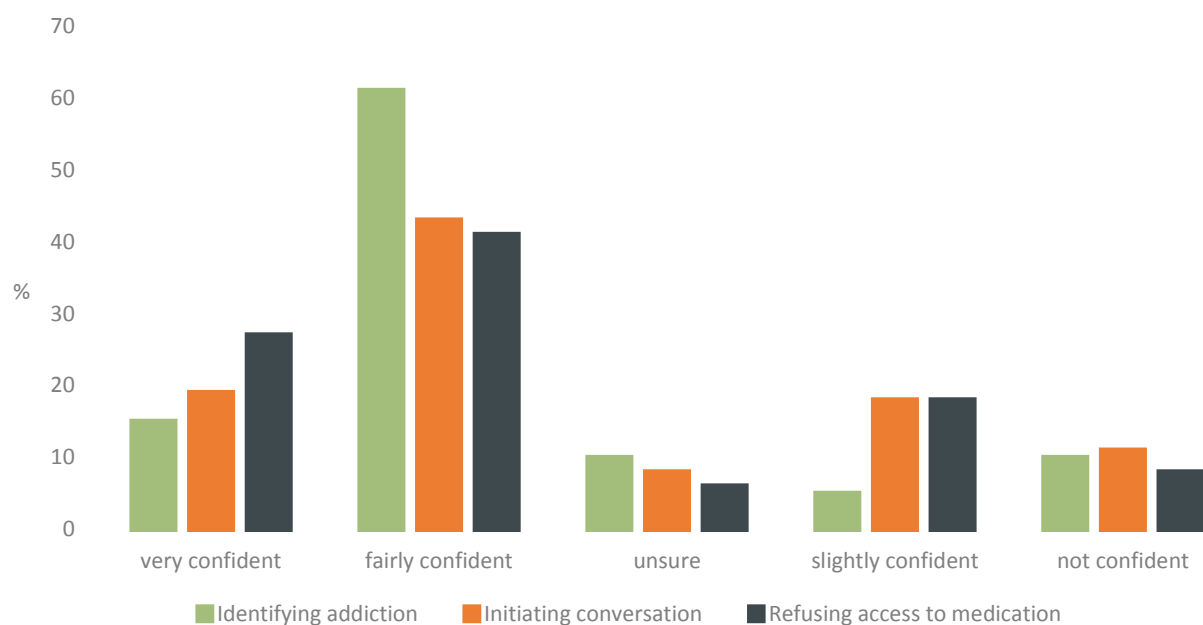


Table 3: Confidence initiating conversations around addiction to medicine

	GP-based (n=38)	Pharmacy based (n=22)
	n (%)	n (%)
Very confident	8 (21)	2 (9)
Fairly confident	19 (50)	8 (36)
Unsure	1 (3)	4 (18)
Slightly confident	5 (13)	6 (27)
Not confident	5 (13)	1 (5)
Not applicable	0	1 (5)

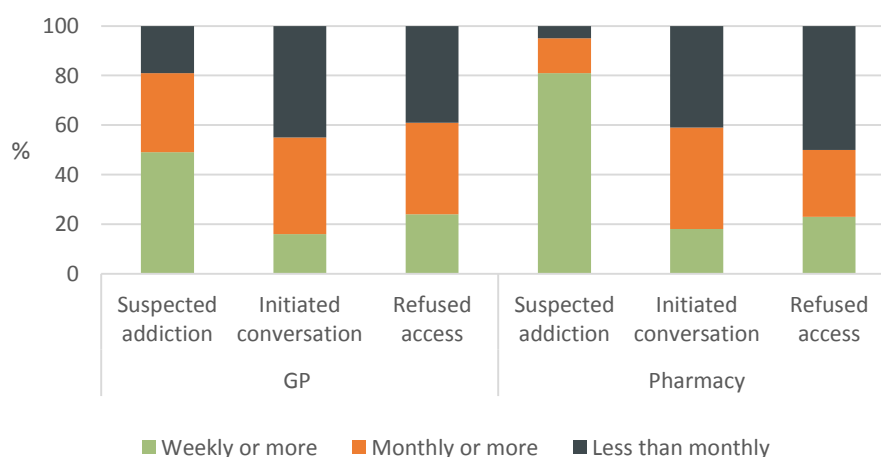
Table 4: Confidence refusing medication to those addicted to medicine

	GP-based (n=38)	Pharmacy based (n=22)
	n (%)	n (%)
Very confident	9 (24)	7 (32)
Fairly confident	15 (39)	10 (45)
Unsure	3 (8)	1 (5)
Slightly confident	7 (18)	3 (14)
Not confident	4 (11)	1 (5)

Participants were asked to describe how frequently they took action when they suspected an addiction, including i) initiating a conversation with a patient and ii) refusing access to medication. A substantial proportion of participants reported taking action against suspected addiction only very occasionally. In total, 43% (27/63) reported that they initiate a conversation with or refuse medication to someone who they suspect of developing an addiction every six months or less frequently. Of the remainder of the sample a small proportion (17%, 11/ 63) reported initiating a conversation 2-4 times a week or more frequently, and one quarter (25%, 16/63) reported refusing access to medication 2-4 times a week or more frequently.

The regularity in which GP and pharmacy-based staff initiated conversations and refused access to medication were similar. However, a comparison of the regularity of which addiction was suspected, particularly amongst pharmacy-based staff and the reported frequency that action was taken suggests that intervention is far less frequent (Figure 6) than might be expected.

Figure 6: Frequency that action is taken by participants alongside participant suspicion of addiction amongst patients (n=63)



Supporting individuals with addiction to medicines

Treatment options

Almost half (47%, 29/61) of participants felt that current treatment pathways are not meeting the needs of those who have addiction to medicines. GP staff (66% 25/38) were much more likely to indicate that current treatment pathways are not meeting patient needs than pharmacy staff (18%, 4/22).

Current levels of intervention and support

Participants typically described a perception of inadequate, limited or no provision of appropriate support services and were often unsure about specific referral pathway availability. This perceived lack of support was seen as inequitable compared to support services for individuals addicted to illicit drugs such as heroin and cocaine. There were also concerns among some pharmacy staff that simply restricting or denying medicines to patients with ATM was not a straightforward decision for them to make. More specifically, without recommendations from a patient's GP, they were unsure about making a decision that might have negative implications on treatment of the patient's health condition, such as chronic pain.

Improving support to individuals with ATM and reducing harm

In order to help support individuals with ATM, several GP and pharmacy staff (n=36) made suggestions to:

- Increase awareness of ATM, which might include displaying educational leaflets and posters in waiting rooms, encouraging individuals to be more open about their addiction to health professionals, family and friends (n=6).
- Develop more support services, i.e. with dedicated resources for populations with ATM (n=4).
- Better awareness and use of referral systems between GPs, pharmacies and support services (n=3)
- Reduce stigma associated with ATM (n=2)
- Restrict dispensing of OTC medications, or time limited prescriptions from GP, so that repeat prescriptions cannot be made too frequently (n=2)
- Provide more visible warning labels on medicines that have addictive potential (n=2)
- Establish a peer-mentoring support group, ideally made up of individuals with a similar demographic to those with an addiction to medicine (n=2).

Support for and role of health professionals

Responsibility and role

More than half of participants (59%, n = 35/59) said they would not like to have a role supporting individuals with addiction to medicines. When looking at the difference between staff based within pharmacies and GPs (n=58), the majority of pharmacy staff (70%, n=14/20) said they would like a role, while the majority (76%, n=29/38) of GP staff said they would not. When asked about training on the topic, only a small number of GPs and pharmacy staff (16%, 6/38) wanted to be provided with specialised training or advice. This was described as being to increase their confidence and/or gain greater job satisfaction through helping others. Some GPs (50%, 9/18) and pharmacy staff (27%, 3/11) referred to being unwilling or unable to provide additional support as they anticipated that it would lead to more time pressures and demands.

Improving identification of individuals with ATM

Including both GP and pharmacy staff (n=45), when asked about ways that they could improve identification of patients with ATM, some suggestions included to:

- Increase access for healthcare staff to specialised training and education materials so that staff can provide evidence-based advice (n=8)
- Provide more time and opportunities for communication and joint working between GPs, pharmacies and other health services to aid rapid identification of addiction and support (n=6)
- Offer a greater diversity of tailored non-medication options to address individuals' unique needs more holistically, including specialised referral pathways for addiction, pain clinics and counselling (n=5).
- Creating suitable media campaigns to raise awareness about addiction to medicines (n=4).
- Develop a computer programme or screening tool that can identify individuals at risk of ATM and/or monitor prescriptions and/or OTC medicine purchasing so as to raise an alarm when they are being used to frequently (n=4)

Support with refusing medication to individuals with ATM

In order to confidently refuse medication to individuals with ATM, some GP and pharmacy staff (n=30) stated that they may require:

- Information about a service they can offer as an alternative to medication (e.g. being able to offer psychosocial or holistic forms of therapy) (n=24).
- Training on how to effectively communicate with individuals with ATM, as well as policies and procedures that allow patients/customers to be dealt with appropriately (n=4)
- A physical barrier on the pharmacy counter or support in the pharmacy in order to avoid harassment of staff (n=2).

Local Authority Differences

Local Authority information was available for 59 (78%) of participants. While it was intended to breakdown results where appropriate by each Local Authority, findings are presented here for participants from St Helens (n=16), Knowsley (n=15) and Sefton (n=13). For the remaining local authorities, participant numbers were low (n=15) and participants have been grouped together as 'other' local authority in this analysis. Proportions of GP and pharmacy based staff responding to the survey were similar across local authorities.

Extent of addiction to medicines

There were some differences in the extent of addiction by local authority. Differences included that participants based in Knowsley reported encountering addiction to POM and OTC more frequently, and in Sefton less frequently, than those within other local authorities. It is important to note that it was not possible to determine from this data whether these findings are due to there being a higher prevalence of addiction to medicines in some local authorities than others, or other factors (for example the rate that addiction is identified or the comparative response rate for that area).

Confidence and action in tackling addiction

Participants in Sefton reported taking action, including initiating conversations about addiction and refusing medication, less frequently than those in other local authorities. Participants in Knowsley appeared slightly less confident in identifying possible addiction, initiating conversations and refusing medication than those in other local authorities. While

there were some small differences between other local authorities on these measures, patterns of taking action were generally similar.

Experiences of training

Across the local authorities, between one half and two thirds of participants reported that they had received specific training or undertaken self-learning regarding addiction to medicines. In Sefton only one out of eight participants reported having undertaken training.

Discussion

The present study's findings are relevant to Cheshire and Merseyside, while supporting current evidence on a wider scale that addresses ATM as a significant public health issue [8, 17]. For example, some studies have similarly reported that the majority of professionals responding to surveys were concerned that ATM was regularly occurring in their practice while listing several OTC and POM being obtained for misuse. However, findings here additionally suggest that identification and observation of individuals with ATM does not positively correspond with the relatively small proportion of professionals taking action to help their patients – the majority of whom are not currently accessing appropriate support and treatment [6, 12]. The provision of support for individuals addicted to medicines was presented as being inadequate compared to individuals affected by addiction to illicit drugs, supporting previous qualitative findings that show treatment for ATM as being ineffective and not specialised enough [6, 18].

What medicines are misused and which populations are affected?

In line with previous studies, the most frequently suspected addictions in our study mainly included anxiolytics and hypnotics (e.g. benzodiazepines and z-drugs), strong and weak opioid analgesics and anti-epileptics/ neuropathic analgesics. In line with current evidence the most commonly abused substances were often regarded as those containing codeine [5, 18, 19]. This supports research highlighting that the risk of becoming addicted to medicines containing codeine (formulated with other analgesics such as paracetamol, ibuprofen, and aspirin), resulting in subsequent adverse effects (e.g. gastrointestinal haemorrhage, nephrotoxicity and overdose), is high where access to codeine is less regulated [20].

Some professionals in this study further highlighted the issue that some of their patients are purchasing excessive quantities of laxatives and weight loss medications, which has been acknowledged in other investigations [6, 12, 18, 21, 22]. While this study focussed on psychoactive medicines, tackling abuse of laxatives and weight loss medicines is important, as recurrent use and/or addiction to these substances can have several costly and harmful implications, especially among individuals with an eating disorder [23, 24].

In the present study both GP and pharmacy staff identified that ATM is suspected in a diversity of individuals. While this is in line with previous research [6, 12, 18], findings here go on to suggest that specific groups are more likely to be suspected of addiction to certain medicines than others. For example, again supporting current evidence on those with ATM, professionals described that middle aged women and men, more so than young people, seek potentially addictive medicines for chronic pain (e.g. Fibromyalgia) [25] and sleep problems [26]; which can leave them more at risk of becoming addicted to analgesics, hypnotics and sedating antihistamines. Although

trends in prescribing of these types of medicines have been decreasing within the UK over the last several years, they still make up a large proportion of the medicines to which individuals are addicted [1, 27].

Young people were regarded by professionals in this study as being particularly vulnerable to ATM. This might be due to the greater likelihood of risky behaviour among young people (notably with their peer groups) and use of maladaptive coping strategies for stress, anxiety and depression when transitioning to adulthood and/or when experiencing demands of intensive study [28]. For example, analgesics like paracetamol are commonly abused drugs among young people in both the UK and USA, including high school and university students [29, 30]. Authors of a recent USA study also pointed out that around 18% of young adults between 18-25 have at some point intentionally misused OTC or POM [31]. Furthermore, excessive alcohol consumption has been positively associated with addiction to prescription drugs, including in young people [32, 33].

Other specific populations identified in this study as potentially at risk of ATM included former prisoners. This aligns with previous research findings showing that prisoners often abuse OTC or POM, partly due to encountering more adverse life experiences and health problems related to anxiety, pain and poor sleep than the general population [34]. Professionals additionally commented on how adverse childhood experiences, life trauma or having current issues and/or past experiences of addiction could contribute to becoming at risk of ATM. This reflects national trends in the UK, with 10% of service users in treatment for ATM having been identified as experiencing comorbid illicit drug problems [1]. Furthermore, prevalence of ATM among users of illicit drugs (18%) is estimated to be nearly three times higher than the general population not using illicit drugs (5%) [35].

In most cases, ATM is reported to develop from initially taking medication as part of a health improvement practice (e.g. recommended treatment regime from a GP or family member), as opposed to seeking hedonic pleasure [6, 36]. However, to date, there is limited/no evidence to address what specific proportion of individuals with ATM have an initial intention to misuse a certain medicine as compared to seeking support for an existing health concern. Nevertheless, taking action on ATM is likely to require intervention at the point where GPs and pharmacists feel better able to offer non-medicine alternatives or provide smaller quantities of potentially addictive medicines to their patients. This has already been partially tackled through the reductions in the maximum pack sizes for codeine-containing medicines put into place in 2009³.

Identifying and approaching individuals with ATM

Professionals were often confident in being able to identify service users with ATM. For example, typical means of identification involved acknowledging when patients were continuing to take large doses of medication despite not responding to treatment. They were also aware of patients acting in a suspicious manner, and when they obtained medication from different pharmacies – behaviours that have been identified as common among individuals with ATM [37]. However, findings in the present study suggested that many professionals, especially pharmacy staff, were not confident raising their concerns with patients. Consequently, while patients in need might be easily identified as having an ATM, gaining support for their problem will remain an issue unless GP and pharmacy staff are able to feel more confident when approaching patients, discussing their concerns, and informing them of ways they can gain access to appropriate support. Yet while this study's findings

³ <http://www.chemistanddruggist.co.uk/content/rpsgb-law-and-ethics-bulletin-otc-codeine-dihydrocodeine>

imply that there are several practical ways of improving support of individuals with ATM, there may be several barriers when trying to do so. As also identified in current findings, professionals may need to have access to more time and resources in order to feel willing and capable of assisting patients with ATM.

Barriers to supporting individuals with ATM

This study noted professionals' negative views around specific barriers faced when providing support. In particular, individuals affected by ATM may not typically identify themselves as 'drug addicts' (e.g. illicit drug users) and, as acknowledged in the current findings and elsewhere, may be unwilling to openly speak about their concerns to professionals, especially pharmacy staff [6, 12, 18]. This may be due to individuals requiring greater time to develop rapport and understanding with GP staff, preferably those they already feel familiar with. However, unwillingness to speak openly about concerns might also be due to the negative stigma attached to identifying oneself as a drug addict. This stigma may be more marked among individuals who perceive themselves as having a high degree of education and/or intelligence [38], which appear to be well represented among populations addicted to medicines. With these barriers to disclosing problems around ATM, affected individuals have been shown to prefer accessing online support groups where their addiction feels more accepted, understood and less-stigmatised [6, 12]. However, it is important to note that such online support groups will not be universally effective and a number of individuals are likely to be under supported by the current health and social care provision. For example, a recent study found that online support groups for drug sobriety was not as effective as face-to-face meetings as part of a 12-step recovery program⁴.

It is important that actions to improve support for individuals with ATM involves increasing professionals' confidence to tackle these issues. For example, findings in this study and elsewhere suggest that professionals should be provided with more opportunities for specialised training. It is recognised that support services for those with ATM are limited and where these exist they may be perceived as lacking and inequitable compared to support available for individuals addicted to illicit drugs. Where current treatment options are viewed as poor, this might further diminish professionals' confidence when deciding whether to initiate a supporting conversation with their patients or refer them to support services.

The provision of treatment for people addicted to medication varies throughout the UK, with a greater proportion of such individuals being located in the North of England. For example, compared to the national average of 16% of individuals being treated for drug addiction having an ATM, this figure rises to 18% in the North West and further to 27% in the North East [1]. Decisions regarding the commissioning of treatment are complicated, and take into account the limited resources available, and pressures that promoting service availability to this population will place on treatment services. If numbers of individuals with ATM continue to rise, this will likely place a strain on both national and local community resources.

⁴Drug Free. (2015). Accessed on 2nd October 2015 at: <http://www.drugfree.org/join-together/study-online-support-groups-effective-face-face-meetings-sobriety/>

Next Steps

1. Establishing clear local treatment pathways that enable patients to access the support they need is required. It is beyond the scope of this study to make firm recommendations on what these treatment pathways should be, but a joined up approach to treatment for medicine addiction between front line health professionals, pain specialists and drug treatment providers with expertise in addiction is likely to benefit patients. In developing these pathways, it is important to recognise the diversity of the individuals affected by ATM and their routes to addiction problems.
2. As part of developing an approach to treatment it will be useful to explore ways to support GP and pharmacy staff to identify and work with individuals with addiction to medicines, while acknowledging the limits of their resources. Health professionals who want to continue to support treatment of patients should be supported to do so and all health professionals should be easily able to refer patients to treatment.
3. Create opportunities for health professionals to engage in specialised training that addresses how to not only identify patients with addiction to medicines, but also how to confidently tackle this issue, refuse medication where appropriate (and recognise where this may not be the best approach), provide tailored advice and refer them on to appropriate local services. It is important that where addiction is identified, health professionals have the resources to tackle this issue.
4. More research is required in order to understand and address the needs of those individuals affected by ATM. Research into patient awareness and concern about addiction, motivations to seek support and barriers to seeking support is likely to be particularly useful. Evaluation of local treatment pathways in Cheshire and Merseyside will provide important examples of good practice and identify where there are particular treatment gaps.

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Appendix A: Drug classifications and examples

Drug Classification	Examples
Anxiolytics and hypnotics	Benzodiazepines e.g. Chlordiazepoxide, Diazepam, Loprazolam, Lorazepam, Nitrazepam, Oxazepam, Temazepam, Clonazepam Z-drugs e.g. Zaleplon, Zolpidem, Zopiclone
Strong opioid analgesics	Pethidine, Methadone, Oxycodone, Opium tincture, Anhydrous morphine, Kaolin and Morphine
Weak opioid analgesics	Codeine, Dihydrocodeine, Tramadol
Anti-epileptics and neuropathic analgesics	Pregabalin, Gabapentin, Carbamazepine
Antitussives	Dextromethorphan, pholcodeine, codeine linctus
Stimulants e.g. Methylphenidate, Dexamfetamine, Modafinil, Pseudoephedrine	Methylphenidate, Dexamfetamine, Modafinil, Pseudoephedrine
Sedating antihistamines	Promethazine and diphenhydramine

Adapted from: Public Health England 2013: Commissioning treatment for dependence on prescription and over-the-counter medicines: a guide for NHS and local authority commissioners. Appendix A. Some medicines liable to misuse or dependence.

