Understanding, benefits and difficulties of home medicines review - patients' perspectives

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Background

The home medicines review (HMR) is an important tool for promoting a model of patient-centred care. This article seeks patients' perspectives on understanding, and perceived benefits and difficulties of HMRs.

Method

A qualitative study based on semi-structured interviews of adult participants who completed an HMR was undertaken in Blacktown, a growing, multicultural suburb in Western Sydney. The medical centre is a large general practice offering comprehensive, integrated care. Fifteen participants consented to be interviewed. There was even representation of men and women, and the majority had completed high school.

Results

Three major areas were explored: understanding and expectation of an HMR, perceived patient benefits and difficulties.

Discussion

The HMR has the potential to be a useful tool in patients' management of their medications. There are clear benefits when performed well. However, we have identified areas of limitations in effectiveness, which present opportunities for strengthening the HMR process. Training of doctors and pharmacists may be needed to ensure better patient outcomes.

Keywords

medication adherence; medication systems; clinical audit

n Australia, the percentages of hospital admissions due to adverse drug events range from 5.6% in the general population to 30.4% in the elderly population.1 Studies also show that patient compliance with medication is as low as 50-60%.2 Also, 59% of adults do not reach the minimum level of literacy required to understand health information.3 These findings suggest the need for a strategy to improve the use of medicines and to prevent adverse drug events.1

In 2001, the Home Medicine Review (HMR) was introduced into the Australian Medicare Benefits Schedule (MBS) to address these issues. The aim of the HMR is to reduce the problems that arise through inappropriate use of medicines, by improving collaboration between patient, general practitioner (GP) and pharmacist.^{2,4,5} The GP identifies patients with factors likely to benefit from a review, including recent changes to medications, receiving more than five medications, recent discharge from hospital, suspected non-compliance or patients under the care of multiple specialists. Patients then meet with an accredited pharmacist who assesses their understanding of their medications and provides education. On completion of the review, the pharmacist writes a report to the GP suggesting changes if necessary, after which the GP follows up with the patient and integrates the input of the pharmacist.

There is evidence to show that collaboration between doctors and pharmacists can result in better patient care and medication management.⁶ Integrating the pharmacist's role into primary care practices has also been shown to improve the treatment of many conditions⁷⁻¹¹ and increase patients' knowledge of drugs, and adherence to their medications.4 Furthermore, the principles of HMRs are aligned with patient-centred care, a model of healthcare established in Australia.4

Bergeson and Dean¹² argue that a patient-centred approach is strengthened by '(1) improving access to and continuity

with clinicians. (2) increasing patients' participation in care by making it easier for patients to express their concerns and involving them more actively in the design of their care, (3) supporting patient self-management through systems that facilitate goal setting and that increase patient and family confidence in self-care, and (4) establishing more efficient and reliable mechanisms for coordinating care among settings'. The most important attribute of patient-centred care is the active engagement of patients in decision making.13

There have been previous studies investigating the perspectives of GPs and pharmacists on HMR programs, 14-17 which have identified areas of difficulties including insufficient time, insufficient resources, inadequate communication and low health literacy. 18 However, there are limited studies from the patient's perspective. A patient-centred approach seeks better understanding of the patient's experience of the HMR. The aim of this study is to better comprehend patients' understanding and expectations, and perceived benefits and difficulties of this experience.

Methods

A qualitative approach was deemed appropriate to understand patients' experience of HMRs. Data were collected within semi-structured interviews and analysed using thematic analysis. The semi-structured interviews were transcribed by their respective interviewer using DRAGON Dictation 10 software,18 and were then subsequently coded by the group using NVIVO 9 software.19 The interviews were anonymised and analysed with identification of key themes. UWS Human Research Ethics Committee approved the study, inclusive of methods (H9067).

Results

Participants had completed an HMR at a medical centre in Blacktown, outer metropolitan Sydney. Seventy-five participants were identified. Sixty-four

participants were contactable and were approached with a standardised information sheet and consent form. Fifteen consented to participate. Three interviewers underwent interviewing training¹² and several group sessions of practice. Consent was again obtained prior to audio-recording the interview.

The majority of participants were over 50 years of age, and there was an even representation of men and women. No participant reported language difficulties in the HMR process. The majority had completed high school and a few had progressed to tertiary education. The results of this study are aggregated according to the three main themes understanding and expectation of HMR,

Patient understanding and expectation of HMR

patient benefit and patient difficulties.

The participants varied in how well they understood the HMR. They ranged from not having received any explanation or a very brief explanation, to having a specific purpose for their participation.

The majority of participants had a general understanding that there would be a discussion of medications with a pharmacist.

'It was different to what I thought anyway. I thought she was going to go through every medication and tell me what it does.' (Participant [P]:15)

'I thought they'd tell me what could go with what and what can't go with what and when: (P:4)

Several participants were able to identify specific goals they wanted to achieve in undergoing the HMR. One stated their referral was,

'To find out if there was anything that could be changed regarding [their] medication for diabetes, maybe there was a better medication available.' (P:10)

Another also recognised their reason for referral, and showed understanding into the process.

'I have so many different problems I was becoming confused between the medicines I was taking for [them] and how they interacted.' (P:12)

A few participants reported they were told nothing at all, one simply having understood it as, 'a new thing on the market,' (P:2). These participants showed lack of insight into the reasons for their referral to the program, generally agreeing to undergo a review out of compliance with their GP's suggestion.

'I said okay, the doctor knows best most of the time...I thought why not. So I did.' (P:4)

A participant was questioning of the reasons for their referral to the HMR, sharing that they were told, 'it is for the elderly when they are not able to take care of themselves. But I'm not old.' (P:8)

Patient benefit

The majority of participants reported positive outcomes from their HMR experience - increased knowledge, a holistic review, medication improvement, increased health seeking behaviour, strengthened self-management and interest of participants in encouraging others to seek out an HMR.

In acquisition of knowledge, most participants reported positive outcomes.

'Before I didn't know what I was taking. Not asking why I'm taking and what it's for. Now I have the knowledge. I'm well aware of what I'm taking and not taking something on a gamble.' (P:5)

One participant received an information booklet regarding one of their drugs and found it especially helpful to have something they could refer to if needed.

'The pharmacist gave us an information booklet which was really good. They underlined all the symptoms that were affecting me.' (P:6)

Participants also reported more interest in increasing health literacy following their experiences.

'I was in search for the answer. I went searching and I found it.' (P:4)

A benefit mentioned by a few participants was that the HMR was a chance for their medications to be reviewed in a holistic manner.

'There was not a clear line of communication between the doctors regarding what I should be taking. I was concerned about the number of medications I was on, and not any one doctor knew all the medicines.' [P:12] 'It's a very good plan in the sense that the patient gets to have a real comprehensive overview of all the medicines they've been prescribed... it's always good to refer to somebody who is more trained, particularly in the various effects of medicines.' (P:8)

While gaining knowledge, the HMR was also a source of positive affirmation regarding participants' self-management of their medications.

'My, I'm doing something right for a change...I feel great.' (P:5)

'It gave me some peace of mind that I was doing everything right.' (P:15)

The practical changes following the review were also highly beneficial for the participants.

'After the review I was put on a different [diabetes medication], and I was able to bring my blood sugars down to stay down.' (P:10)

Individuals with a positive experience expressed interest in introducing others to the program.

'My wife wanted to go as well. So I said to her...it's a really good program. It very enlightens you to what your medication is for.' (P:5)

'We thought it was really helpful, and there should be more of it, especially for the elderly. Before we moved here we never even heard of it.' (P:6)

Patient difficulties

Difficulties perceived by the patient included inadequate introduction, followup and support for the program by the GP, and inadequate time spent and poor attitude from the pharmacist.

For the majority of participants, there was a lack of deliberate follow-up with the GP, receiving their results incidentally as they made visits for other purposes.

'The next time I saw my GP she gave me the result she got from the review. I just went in for the normal visit and she gave me the report and said that it seemed like I had everything under control and I knew what I was doing." [P:15]

'I didn't know she [the GP] had the results. I came for something else. So when I came here to get prescriptions and stuff like that, she said oh your results are here.' (P:5)

Participants who received the shortest reviews felt their HMR was 'a complete waste of time.' (P:3) In their limited time they felt they simply received no information.

'She [the pharmacist] came here, she sat right where you're sitting...and said that's all, have a good day. And off she went.' (P:3)

They engaged in no discussion and were given dismissive responses to their auestions.

'I didn't get any answers. Everything was fine.' (P:4)

In addition to these pharmacists being brief, they were also described as being inattentive, which added to the participants' dissatisfaction.

'She [the pharmacist] was a bit blasé. Her person was there but like nothing inside. She was empty. Like a shell... It was like she had other places to be and she wanted to get it over and done with.' (P:4)

One of the participants contrasted their HMR pharmacist to their regular pharmacist, whom they felt communicated with them more clearly and offered more relevant information.

Participants with negative experiences shared their concerns with their referring doctor. Some reported how their GPs expressed their disappointment with the HMR process.

'He [GP] basically looked at the review [and said] we don't need that. Didn't tell you anything, doesn't tell me anything. So he said it was a waste.' (P:4).

Another participant experienced a 6-month delay for a report, which their GP described as ultimately 'useless.' (P:5)

Discussion

Overall, this study found that there are some clear benefits, yet there are still areas of weakness where significant improvement can be made. There is a significant variability of patient experiences.

Understanding and expectation

Overall, the majority of participants had a limited understanding that the HMR would be an opportunity to have their medication regime evaluated and improved if necessary. The researchers hypothesise that the major contributing factor was limited explanation by the GP. Bergeson et al12 note that this model is still developing as a prominent healthcare model between patients, their doctors and pharmacists. Nevertheless, patients' trust in the GP will facilitate their participation. It is likely to improve patients' preparedness and interest in an HMR if the GP provided a clearer explanation of the aims. 12

The results of this study showed all participants were unaware that the HMR was an ongoing process with subsequent follow-up by the GP to monitor the progress of the recommendations made by the pharmacist. This, unfortunately, conflicts with the purpose of the HMR, which is designed to be a continuous, regulated process modulated by the GP and pharmacist.

As this is a new program and a variation on usual practice, extra time and further focused communication are needed to effectively convey to patients their role in achieving the aims of the HMR. This is particularly important because, as Dunn notes,20 schemes such as an HMR are important in promoting patient-centred care and therefore improving patient health outcomes. Indeed, this is a model that has been found to achieve such results.11

Patient benefits

One of the benefits of the HMR shown by this study is the acquisition of increased knowledge and understanding, satisfying the purpose of HMR.5 This benefit is

located within the domain of improved health literacy. Increased health literacy is an important benefit⁴ as there is evidence correlating patient knowledge and health outcomes.21

This study noted that the emotional reassurance experienced by participants was also a benefit. This opportunity for validation and affirmation is a significant benefit consistent with the model of patient-centred care. A provision of such support to participants about the correct management of their medications is likely to encourage further compliance and interest in their own health.

Evidence has shown that selfmanagement education is beneficial,22 supporting the HMR as an effective tool to improve patient health outcomes. There is a widely accepted shift among health practitioners towards encouragement of and education in 'self-management' skills, which, particularly for patients with chronic disease, helps them to make daily decisions regarding their illnesses.23 For example, patients with diabetes must be aware of their diet, exercise, glucose level, blood pressure and medications.

Patient difficulties

Participants perceived difficulties about the HMR process at the initial GP meeting, limited information and engagement by the pharmacist, long delays in the process and limited GP follow-up and support for the program.

The study has found there was often no deliberate follow-up of the HMR with the doctor. The unfortunate consequence is recognised as a lost opportunity to strengthen patient health literacy. As noted by Dunn,²⁰ good doctor-patient communication is instrumental in the patient-centred model of care, as the patient must feel empowered enough to control their health outcomes while having a medical professional keeping a respectful oversight.20

White et al,4 recount patients feeling valued and cared for when pharmacists 'would address their questions and concerns.' Similarly, in our study,

participants who felt their concerns were addressed perceived greater benefit. If the opposite was perceived, patients expressed dissatisfaction. Together, these results support the notion that the pharmacist and GP's approach can ultimately influence the patient's perception of HMR. This variability can be reduced by emphasising the importance of patient-centred care to the pharmacists and GPs.

This study has limitations. The exploration of these themes within a qualitative paradigm and at a single site setting are acknowledged limitations. The scope of this study limits generalisability.

Summary

This study provides support that a well-performed HMR process within a patient-centred paradigm can enhance patient understanding and lead to patient benefit. Difficulties were encountered when patient's expectations were not met, leading to patient frustration and disappointment, and a lost opportunity to enhance health literacy and engagement.

There has been limited research in this area. This paper makes a contribution to seeking to understand patients' perspectives of benefits, difficulties and understanding of HMR. Further research including quantitative methods trialling an intervention and including various multiple sites would enhance understanding Utilisation of tools to measure participant performance by GPs, pharmacists and patients would further strengthen this research.

Implications for general practice

- · Patients benefit from the HMR process if well performed.
- · Patients need understanding of HMR process (a handout is likely to be beneficial).
- Patients need adequate communication from the GP and pharmacist.
- Patients need an effective summary of the follow-up of the HMR by a designated meeting with the GP (a written summary recommended).

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References

- 1. Easton K, Morgan T, Williamson M. Medication safety in the community: A review of the literature. Sydney: National Prescribing Service,
- 2 Emblen G Miller F Home medicines review The how and why for GPs. Aust Fam Physician 2004:33:49-51
- 3. Australian Bureau of Statistics. Australian Social Trends: Health Literacy. Cat No. 4102. Canberra: ABS, 2009.
- 4. White L, Klinner C, Carter S. Consumer perspectives of the Australia Home Medicines Review Program: benefits and barriers. Res Social Adm Pharm 2012;8:4-16.
- 5. Australian Government Department of Human Services. Fifth community pharmacy agreement. Available at www.humanservices.gov.au/ health-professionals/services/fifth-communitypharmacy-agreement/ [Accessed 10 March 2015].
- 6. Dolovich L, Kaczorowski J, Howard M, et al. Cardiovascular outcomes of a pharmaceutical care program integrated into family practices. Can J Clin Pharmacol 2007;14:e116.
- 7. Carter BL, Ardery G, Dawson JD, et al. Physician and pharmacist collaboration to improve blood pressure control. Arch Intern Med 2009:169:1996-2002.
- Roughead EE, Barratt JD, Ramsay E, et al. The effectiveness of collaborative medicine reviews in delaying time to next hospitalization for patients with heart failure in the practice setting: results of a cohort study. Circ Heart Fail 2009:2:424-28.
- 9. Bell JS, Whitehead P, Aslani P, McLachlan AJ, Chen TF. Drug-related problems in the community setting: pharmacists' findings and recommendations for people with mental illnesses. Clin Drug Investig 2006;26:415-25.
- 10. Gilbert AL, Roughead EE, Beilby J, Mott K. Barratt JD. Collaborative medication management services: improving patient care. Med J Aust 2002:177:189-92.
- 11. Rigby D. Collaboration between doctors and pharmacists in the community. Australian Prescriber 2010;33:191-93
- 12. Bergeson SC, Dean JD. A systems approach to patient-centered care. JAMA 2006;296:2848-51.
- 13 Barry M.J. Edgman-Levitan S. Shared decision. making - the pinnacle of patient-centered care. New Engl J Med 2012;366:780-81.

- 14. Bennett A, Smith C, Chen T, Johnsen S, Hurst R. A comparative study of two collaborative models for the provision of domiciliary medication review. St George Canterbury Medico/Pharmacy Project. Final Report. Sydney: University of Sydney and St George Division of General Practice, 2000. Available at www. dhbsharedservices.health.nz/includes/download. aspx?ID=24607 [Accessed 11 March 2015].
- 15. Campbell Research & Consulting. Home Medicines Review Program, Qualitative Research Project, Final Report. Canberra: Department of Health and Ageing, 2008. Available at www.health.gov.au/internet/main/publishing. nsf/Content/D341DA146481106ACA257B-F00020A7CD/\$File/Cover, %20Execsum.pdf [Accessed 9 February 2015].
- 16. Schwartzkoff J. Evaluation of the home medicines review program - pharmacy component. Investigator Initiated Guild Government Grant 2004–526. 2005. Available at www.guild.org.au/docs/default-source/ public-documents/services-and-programs/ research-and-development/Third-Agreement-R-and-D/2004-526/final-report.pdf?sfvrsn=0 [Accessed 9 February 2015].
- 17. Roberts A, Benrimoj C, Chen T, Williams K, Aslani P. Quantification of Facilitators to Accelerate Uptake of Cognitive Pharmaceutical Services (CPS) in Community Pharmacy. Investigator Initiated Guild Government Grant 2003-007. 2004. Available at www.guild.org.au/ docs/default-source/public-documents/servicesand-programs/research-and-development/ Third-Agreement-R-and-D/2003-007/final-report-. pdf?sfvrsn=0 [Accessed 9 February 2015].
- 18. Nuance Communications. Dragon: Naturally Speaking. 11th edn. Singapore: Nuance Communications, 2010.
- 19. QSR International Pty Ltd. NVivo qualitative data analysis software. Version 9. Doncaster, Victoria: QSR International Pty Ltd, 2010.
- 20. Dunn N. Practical issues around putting the patient at the centre of care. J R Soc Med 2003;96:325-27.
- 21. Van Der Wal MHL, Jaarsma T. Moser DK. Veeger NJGM, Van Gilst WH, Van Veldhuisen DJ. Compliance in heart failure patients: The importance of knowledge and beliefs. Eur Heart J 2006;27:434-40.
- 22. Bodenheimer T, Lorig K, Holman H, Grumbach K. Patient self-management of chronic disease in primary care. JAMA 2002;288:2469-75.