A study to explore people's expectations and experiences with medication prescribing

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Abstract

Title
A study to explore people' s expectations and experiences with medication prescribing.

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Aim
This research aims to establish whether patients are empowered, feel empowered and want to be involved in the decision making of their treatment plan.

Method
The study was designed as an open and closed questionnaire about patient empowerment and expectations.

Results
A total of 68 participants took part in the study, among them 66% female. The most crucial finding was that 75% of participants did not correctly understand the term 'patient empowerment'. The majority of patients prefer to be treated by a doctor in comparison to other non-medical prescribers. Patients resort to enforcing their opinions to prescribers due to the lack of prescribers asking patients about any potential concerns.

Conclusions
Critical to improving medication-related outcomes is patient empowerment to improve self-care and it appears clear that greater public awareness of this is required. Non-medical prescribers must contribute to this and earn public acceptance through better outcomes.

Keywords: Patient empowerment; Patient expectations, Non-medical prescribing, Independent prescribing pharmacists.

Introduction

General practice was introduced into the National Health Service (NHS) in 1948.[1] In 1989, an advisory group was set up by the Department of Health, (DoH), to examine nurse prescribing.[2] Between 1992 and 2006, prescribing nurses grew in numbers, popularity and the range of medications they were able to prescribe. In 1992 nurses were initially given the practitioner status.[3,4,5] The Crown report defined dependent and independent prescribing.[2] Based on that definition, section 63 of The Health and Social Care Act 2001 prescribing rights were passed to other healthcare professionals, including pharmacists, with limited powers, intending to improve patients' access to medicines.[6,7,8] In 2006, the Medicines for Human Use legislation passed which resulted in increasing the abilities for both nurse and pharmacist independent prescribers to prescribe any prescription-only-medication (POM).[9] Their prescribing powers increased further in 2009 when the Medicines for Human Use (Miscellaneous Amendments) (No.2) Regulations were passed, mandating them to prescribe unlicensed medication and then in 2012 to prescribe controlled drugs in schedules 2-5.[10,11] Independent prescribers proliferated and over time, their prescribing abilities grew. Consequently, independent prescribing pharmacist joined nurse practitioners in general practice to alleviate the pressures on general practice.[12,13]

Changes in patient approach

Further additional healthcare professions were added into the growing list of prescribers such as optometrists, physiotherapists and podiatrists, aiming to enhance patients' experiences without compromising their safety, whilst making better use of the skills of healthcare professionals.[14] The Royal College of General Practitioners, (RCGP), recognise in their curriculum, patient empowerment, as part of their clinical management capabilities and skills, and that by empowering

patients and promoting self-care, patient risk factors reduce.[15] The Kings Fund also identified, as part of the areas for quality improvement, patient engagement and involvement to improve the quality of care in general practice, in addition to a new dialogue between the prescriber and patient to empower patients to become fully engaged in managing their care.[1]

The World Health Organisation (WHO) stated that we are already moving away from the traditional 'doctor-knows-best' approaches. Patient empowerment was defined and explained as *"the process of empowerment as the discovery and development of one's inherent capacity to be responsible for one's own life. People are empowered when they have sufficient knowledge to make rational decisions, sufficient control and resources to implement their decisions, and sufficient experience to evaluate the effectiveness of their decisions"*[16] and *"Patient empowerment is defined as helping patients discover and develop the inherent capacity to be responsible for one's own life".*[17] Chronic problems such as hypertension and diabetes need the patient to be involved in the health care solution to achieve good results.[18] The approaches to general care set by the RCGP promoted the shared decision-making approach with patients, using technologies (systems) for communicating in order to better patient care.[19,20]

The European Patients Forum (EPF) defines it as a *"process that helps people gain control over their own lives and increases their capacity to act on issues that they themselves define as important".*[21] Combining this definition with the findings by Agner and Braun[22] who studied patient empowerment from the perspective of the patient. They found that regardless of location, type of illness, or culture, patients expressed their desire for accessible, relevant, individualised and consistent information.[22]

Aim

The aim of this study was to establish whether patients feel empowered and want to be involved in the decision making of their treatment plan.

Ethics

The School of Pharmacy Ethics Review Board approved the study, invitation letter, participant information sheet and study questionnaire.

Sample

The sample size was pragmatic of minimum of 50 participants within one working day from all those who were present in the food court at the university, this including staff, students and visitors.

Design and Method

This was a concept proving study based on a self-completed questionnaire to capture both the experience and expectations directly from the participants. The data was collected on the university campus. The project was designed as a questionnaire-based study developed after carrying out a literature review of studies in the area of patient empowerment and expectations. The reviewed studies did not focus on the experience of patient empowerment from a patient's perspective and did not identify the demand for it either. All individuals that approach the study desk and were willing participants were allowed to take part. Recruitment strategies included approaching individuals passing by the desk. All participants who chose to take part in the study had a participant's information sheet to read informing them that returning the completed questionnaire is their implied consent. All completed questionnaires were collected into a

Demographics of participants	Number (Percentage)
Gender	
Male	23 (34%)
Female	45 (66%)
Age:	
18-24	29 (43%)
25-34	15 (22%)
35+	24 (35%)
Ethnicity:	
Arab	14 (21%)
Asian	18 (26%)
Black	9 (13%)
White	27 (40%)
Religion:	
Islam	29 (43%)
Christianity	13 (19%)
Hinduism	4 (6%)
Sikhism	2 (3%)
No religion	17 (25%)
Prefer not to say	3 (4%)

Table 1: Demographics of participants

sealed box to prevent participant immediate identification. Once the data was collated onto the electronic copy, the paper copies were shredded and disposed of in a confidential waste bin. Microsoft Excel™ was used to analyse the data.

Results

In this study, 68 participants agreed to take part and returned the filled-out questionnaires that consisted of two parts. There were 66% (n=45) females and 34% (n=23) males. Due to this uneven skew, all of the data collected would be translated into percentages to interpret the results correctly. The range of ages showed that the lowest proportion was in the 25 – 34 age group with only 15 (22%). The highest proportion being 18 – 24-year olds and then followed by the 35+ age group. The location was a key factor of why the ages ranged in this way as most students tend to be of the 18 – 24 age group and staff members vary between the other age groups, usually with most senior staff of the 35+ group. The majority of participants identified as White at 40% (n=27). Asians were the second-highest proportion at 26% (n=18), with Arabs at a similar 21% (n=14). The remaining 13% (n=9) identified as Black. Majority of the participants were Muslim at 43%, with the second-highest group stating they do not follow any religion at 25%. Of the remaining, 19% identified as Christian, 6% as Hindu and 3% Sikh with 4% who preferred not to disclose that information (Table 1).

Patient experience and preference

A control question was asked whether the participant had received any prescribed medication in the last five years. This was asked to identify any patients whose results may skew the results because they potentially have not had the experience needed to take part in the study. Out of the 68 participants, 62 participants (91%), stated they had been prescribed medication within the last five years. Participants were asked whether they knew pharmacists could prescribe and both their preference of prescribers and who they had been previously prescribed by. A significant number of participants knew that pharmacists could prescribe (78%). In terms of preference, 87% prefer to be treated by a doctor, with only 7% preferring a nurse practitioner and 6% an independent pharmacist. No males preferred a

Question		Responses (%)			
Did you know pharmacists can treat and prescribe?			*Yes*	*No*	*Total*
Gender	Male Female		21 (91%) 32 (71%)	2 (9%) 13 (29%)	23 (34%) 45 (66%)
Total			*53 (78%)*	*15 (22%)*	*68 (100%)*
Age	18-24 25-34 35+		23 (79%) 11 (73%) 19 (79%)	6 (21%) 4 (27%) 5 (21%)	29 (43%) 15 (22%) 24 (35%)
Total			*53 (78%)*	*15 (22%)*	*68 (100%)*
Who do you prefer to be treated by?		**Doctor**	**Nurse Practitioner**	**Independent prescriber**	**Total**
Gender	Male Female	20 (87%) 39 (87%)	0 (0%) 5 (11%)	3 (13%) 1 (2%)	23 (34%) 45 (66%)
Total		*59 (87%)*	*5 (7%)*	*4 (6%)*	*68 (100%)*
Age	18-24 25-34 35+	21 (73%) 15 (100%) 23 (96%)	5 (17%) 0 (0%) 0 (0%)	3 (10%) 0 (%) 1 (4%)	29 (43%) 15 (22%) 24 (35%)
Total		*59 (87%)*	*5 (7%)*	*4 (6%)*	*68 (100%)*
Who have you been prescribed by?		**Doctor**	**Nurse Practitioner**	**Independent prescriber**	**Total**
Gender	Male Female	8 (35%) 7 (16%)	11 (48%) 36 (80%)	4 (17%) 2 (4%)	23 (34%) 45 (66%)
Total		*15 (22%)*	*47 (69%)*	*6 (9%)*	*68 (100%)*
Age	18-24 25-34 35+	8 (28%) 1 (7%) 6 (25%)	19 (65%) 13 (86%) 15 (63%)	2 (7%) 1 (7%) 3 (12%)	29 (43%) 15 (22%) 24 (35%)
Total		*15 (22%)*	*47 (69%)*	*6 (9%)*	*68 (100%)*

Table 2: Questions relating to prescribers.

nurse practitioner, and from all females, those preferred a nurse were in the 18-24 age group. Most of the participants (69%) indicated that they had been prescribed previously by a nurse practitioner, of whom 77% were female. The consensus was to be prescribed by doctor (Table 2).

Patient opportunity and considerations

When asked about their input into their treatment and whether their opinion was considered, the majority of participants, 71%, stated that their opinion was considered. However, only 41% felt they had been allowed to have input on their treatment (Table 3). There were 38% of participants stated that both they were given the opportunity, and their opinion was considered. Another 27% stated that they were not given the opportunity, yet their opinion was still taken, indicating that they enforced their opinion onto the prescriber. From the participants, 19% stated that both they were not given the opportunity, and their opinions were not considered. From the female participants, 51% stated they were not given the opportunity. However, from the males, 74% stated their opinions were considered. On total, 15% stated in either one or both questions that they do not want to take part in the decision making of their treatment.

Patient expectations

Participants were asked on a scale of 0-10, how the prescriber visit met their expectations. Of the males, the average score was 7.1, ranging from 5-10. Of the females, the average was 6.8 and ranged from 3-10. From those who stated their opinion was considered, 71% gave a 7+ score of expectation met. For those who stated their opinion was not considered, 64% gave a score of 6 or below for expectation met.

Medication explaining and questioning

Out of the 68 participants that took part in this study, 60 (88%) stated that they usually are explained their medication by at least their doctor, yet only 31% stated their community pharmacist explained. The only significant finding was found by

Question		Responses (%)			
Do you feel you are given the opportunity to choose your treatment?		*Yes*	*No*	*Don't wish to take part*	*Total*
Gender	Male	9 (39%)	9 (39%)	5 (22%)	23 (34%)
	Female	19 (42%)	23 (51%)	3 (7%)	45 (66%)
Total		*28 (41%)*	*32 (47%)*	*8 (12%)*	*68 (100%)*
Age	18-24	11 (38%)	14 (48%)	4 (14%)	29 (43%)
	25-34	5 (33%)	9 (60%)	1 (7%)	15 (22%)
	35+	12 (50%)	9 (37%)	3 (13%)	24 (35%)
Total		*28 (41%)*	*32 (47%)*	*8 (12%)*	*68 (100%)*
Ethnicity	Arab	8 (58%)	2 (14%)	4 (28%)	14 (21%)
	Asian	8 (44%)	9 (50%)	1 (6%)	18 (27%)
	Black	3 (33%)	6 (67%)	0 (0%)	9 (12%)
	White	9 (33%)	15 (56%)	3 (11%)	27 (40%)
Total		*28 (41%)*	*32 (47%)*	*8 (12%)*	*68 (100%)*
Is your opinion considered?		*Yes*	*No*	*Don't wish to take part*	*Total*
Gender	Male	17 (74%)	5 (22%)	1 (4%)	23 (34%)
	Female	31 (69%)	9 (20%)	5 (11%)	45 (66%)
Total		*48 (71%)*	*14 (21%)*	*6 (9%)*	*68 (100%)*
Age	18-24	21 (73%)	14 (48%)	3 (10%)	29 (43%)
	25-34	10 (67%)	9 (60%)	2 (13%)	15 (22%)
	35+	17 (71%)	9 (37%)	1 (4%)	24 (35%)
Total		*48 (71%)*	*14 (21%)*	*6 (9%)*	*68 (100%)*
Ethnicity	Arab	12 (86%)	0 (0%)	2 (14%)	14 (21%)
	Asian	12 (67%)	4 (22%)	2 (11%)	18 (27%)
	Black	4 (44%)	4 (44%)	1 (12%)	9 (12%)
	White	20 (74%)	6 (22%)	1 (4%)	27 (40%)
Total		*48 (71%)*	*14 (21%)*	*6 (9%)*	*68 (100%)*

Table 3: Questions relating to opinions of patients.

ethnicity, showing that 37% of those identified as white had a nurse practitioner explain their medication to them. From those identified as white, 67% had previously said a nurse practitioner had prescribed them. This was significant as all other groups of ethnicities had at least 57% of participants previously prescribed by a nurse practitioner.

Question		Responses (%)				
How long does the prescriber take?		**Rarely**	**Under a minute**	**Not rushed**	**Rushed**	***Total***
Gender	Male	5 (22%)	8 (35%)	9 (39%)	1 (4%)	23 (34%)
	Female	9 (20%)	19 (42%)	15 (33%)	2 (5%)	45 (66%)
Total		*14 (21%)*	*27 (40%)*	*24 (35%)*	*3 (4%)*	*68 (100%)*
Age	18-24	4 (14%)	8 (28%)	14 (48%)	3 (10%)	29 (43%)
	25-34	6 (40%)	7 (47%)	2 (13%)	0 (0%)	15 (22%)
	35+	4 (17%)	12 (50%)	8 (33%)	0 (0%)	24 (35%)
Total		*14 (21%)*	*27 (40%)*	*24 (35%)*	*3 (4%)*	*68 (100%)*
Ethnicity	Arab	2 (14%)	8 (57%)	4 (29%)	0 (0%)	14 (21%)
	Asian	3 (17%)	6 (33%)	8 (44%)	1 (6%)	18 (27%)
	Black	2 (22%)	4 (45%)	3 (33%)	0 (0%)	9 (12%)
	White	7 (26%)	9 (33%)	9 (33%)	2 (8%)	27 (40%)
Total		*14 (21%)*	*27 (40%)*	*24 (35%)*	*3 (4%)*	*68 (100%)*
Ethnicity	Christian	3 (48%)	6 (48%)	4 (48%)	0 (0%)	13 (19%)
	Hindu	1 (%)	1 (%)	1 (%)	1 (%)	4 (6%)
	Muslim	6 (21%)	11 (38%)	11 (38%)	1 (3%)	29 (43%)
	Sikh	0 (0%)	2 (100%)	0 (0%)	0 (0%)	2 (3%)
	No religion	3 (18%)	6 (35%)	7 (41%)	1 (6%)	17 (25%)
	Prefer not to say	1 (33.34%)	1 (33.34%)	1 (33.34%)	0 (0%)	3 (4%)
Total		*14 (21%)*	*27 (40%)*	*24 (35%)*	*3 (4%)*	*68 (100%)*
Are you given the opportunity to ask questions?			**Yes**	**No**	**Sometimes**	***Total***
Gender	Male		15 (65%)	3 (13%)	5 (22%)	23 (34%)
	Female		24 (53%)	2 (5%)	19 (42%)	45 (66%)
Total			*39 (58%)*	*5 (7%)*	*24 (35%)*	*68 (100%)*
Age	18-24		16 (55%)	2 (7%)	11 (38%)	29 (43%)
	25-34		6 (40%)	1 (7%)	8 (53%)	15 (22%)
	35+		17 (71%)	2 (0%)	5 (21%)	24 (35%)
Total			*39 (58%)*	*5 (7%)*	*24 (35%)*	*68 (100%)*
Ethnicity	Arab		11 (79%)	1 (7%)	2 (14%)	14 (21%)
	Asian		12 (67%)	2 (11%)	4 (22%)	18 (27%)
	Black		3 (33%)	1 (11%)	5 (56%)	9 (12%)
	White		13 (48%)	1 (4%)	13 (48%)	27 (40%)
Total			*39 (58%)*	*5 (7%)*	*24 (35%)*	*68 (100%)*
Ethnicity	Christian		5 (39%)	1 (7%)	7 (54%)	13 (19%)
	Hindu		3 (75%)	0 (0%)	1 (25%)	4 (6%)
	Muslim		21 (72%)	2 (7%)	6 (21%)	29 (43%)
	Sikh		0 (0%)	1 (50%)	1 (50%)	2 (3%)
	No religion		8 (47%)	1 (6%)	8 (47%)	17 (25%)
	Prefer not to say		2 (67%)	0 (0%)	1 (33%)	3 (4%)
Total			*39 (58%)*	*5 (7%)*	*24 (35%)*	*68 (100%)*

Table 4: Questions relating to medication explaining and questioning.

Most patients felt that their medication was explained adequately. This can be taken by combining the results of under 1 minute and not rushed, bringing a total of 75% of participants. Those stating rushed during the explanation from the prescriber collated to 4%, and the final 21% stated rarely explained (Table 4).

Of those given the opportunity to ask questions, 58% stated they are given the opportunity, 35% stated they were sometimes given the opportunity, and the remaining 7% stated they were not. Collectively, patients who did not say "Yes" when asked are you given the opportunity to ask questions resulted in 42%, almost half of the participants, a significant amount. No correlation was found to prescribers treating discriminately. However, the ethnicities and religions did not have an even range between them. As such, some of the results may indicate certain groups with significant indications, yet due to the limited number of participants of certain groups, no interpretations can be made.

Medication problems

The majority of patients (78%) did not experience any problems with medication. No correlation was found between genders or age groups (Figure 1). When asked 'who to speak to when you experience problems', 78% of participants collectively stated they would go to the doctor or community pharmacist to deal with their issue.

Patient understanding of key terms

All participants were asked to give their understanding of 3 terms, 'shared treatment decision making', 'adherence to medication regimen' and 'patient empowerment'. The results of their understandings for each term were compiled into 3 categories:

Category A – *Identified the term according to the definition stated*

Category B – *Did not identify according to the definition stated below*

Category C – *Did not answer*

- Shared treatment decision making – Where a decision was made by both the prescriber and the patient/representative.
- Adherence to medication regimen – Following the treatment/medication plan as intended by the prescriber.
- Patient empowerment – The process that patients take more control over their self-care and engage in discussions about their health.[16,17,21]

Participants who identified the terms according to the definitions (Category A) were 62%, 54% and 25% respectively. Incorrect answers (Category B) was reported by 15%, 18% and 56% respectively. The remaining percentages (23%, 28% and 19% respectively) did not answer the question.

Patient improvement suggestions

Participants gave a wide range of suggestions to improve their treatment journey. Some suggestions were repeatedly mentioned, such as 42% of participants want more time with the prescribers. Others stated that they wanted more knowledgeable prescribers and a more extensive range of information and options to be provided (29%). One participant felt they were continuously assumed to be pregnant and would be refused medications due to a potential pregnancy even after disclosing that she is lesbian and not intended to be pregnant and wanted her voice to be heard. Other participants suggested a review system for doctors, organisations and better options such as "go straight to the pharmacist instead of waiting for the GP" --

Discussion

Factors such as culture, beliefs, gender and age did not show any relationships with patients' preference of choice of prescribers or the experiences they had with their prescribers.

Patient experience and preference

Most (78%) participants knew that pharmacist could prescribe, and 69% of participants had previously been prescribed medications by a nurse practitioner. However, 87% of participants would prefer to be treated by a medical doctor. In

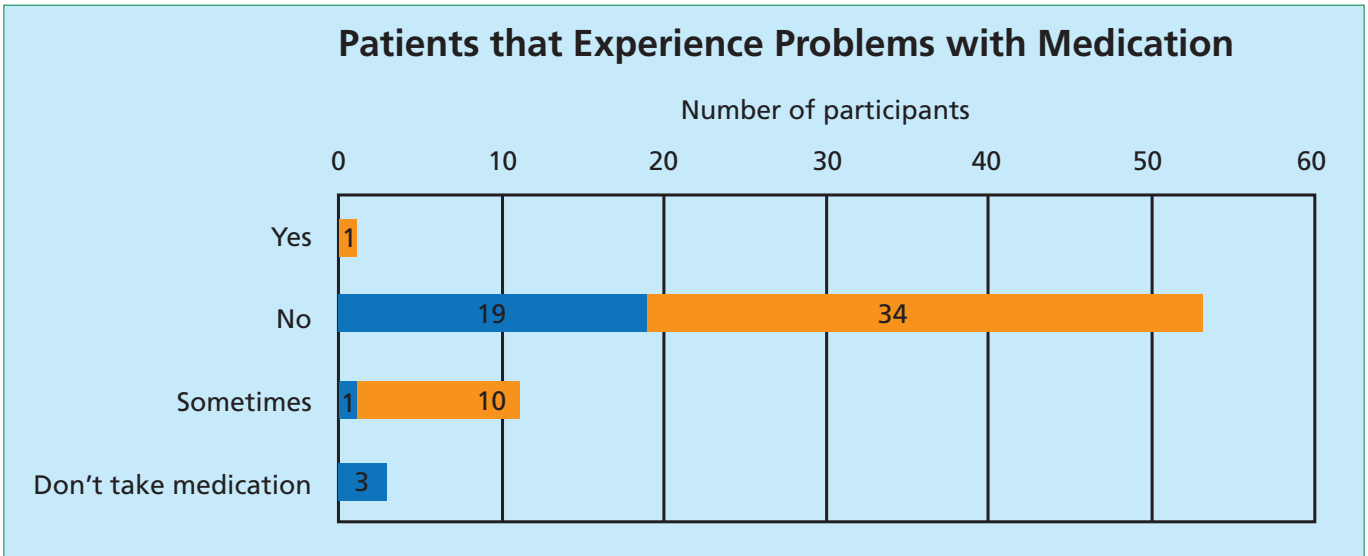

Figure 1: A stacked chart to illustrate the distribution of problems with medication.

line with the suggestions that participants made at the end of the questionnaire, patients expect to be treated by doctors. Nevertheless, their experience suggests that doctors are in low supply, high demand and that as patients, they are not given enough consultation time to explain their needs and often leave the doctor office unsatisfied. As identified by Hobson, Scott and Sutton[23] although the nurse and pharmacist prescribers were somehow qualified, patients have felt the doctor is a superior option. This, however, is something that needs to be addressed by stakeholders to promote nurse practitioners and independent pharmacist prescribers, to patients.

Patient opportunity and considerations

Castro et al.[24] found that 41% said they felt they were given the opportunity to choose their treatment, 71% of them stated that their opinions were considered. This is indicating that shared decision making, while known, is not used in most occasions.

In this study, 12% of participants suggested they do not want to take part in the decision-making process which also agreed on by them.[25-27]

Medication explaining and questioning

Patients felt that new medication was explained by the prescriber (75%) taking under a minute or not rushed. However, 42% of participants felt they were not always given the opportunity to ask questions about the medications. Patients who can voice their concerns and get answers to enhance their understanding are prone to a better level of self-management, a vital goal when prescribers are dealing with patients.[28-30]

However, not all patients want the same level of knowledge, some patients only want to know general information, whereas other patients want to delve into the specifics of the condition itself. This shows us that in practice, we do not have to spend the same amount of time with every patient, but more so spend the right amount of time, in this case, 'the right time' is specific to each patient and can vary widely.[30]

Patient understanding of key terms

Participants showed an essential lack of understanding of the term patient empowerment. Only 25% correctly stated the correct definition.

Due to the apparent lack of understanding by participants, and the continuous response by patients regarding gaining control of the decision-making and treatment plan, this shows that patients do not understand the fundamental principle of patient empowerment. Thus, although patients are treated in a satisfactory manner, the lack of understanding and taking responsibility for one's health results in an unstable relationship between the prescriber and the patient. The prescriber will continuously push the patient to engage more and take responsibility for oneself, whereas the patient will continuously try to gain control of the decision making. This puts the health and well-being of the patients at risk.[28-33]

As mentioned, *"Empowerment is more than an intervention or strategy to help people make behaviour changes to adhere to a treatment plan. Fundamentally, patient empowerment is an outcome. Patients are empowered when they have knowledge, skills, attitudes, and self-awareness necessary to influence their own behaviour and that of others in order to improve the quality of their lives".*[16]

Patient improvement suggestions

The main suggestion by participants was for there to be more time to spend with the prescriber to both understand and achieve an outcome suitable by both prescriber and patient. In addition to this main suggestion by participants, other suggestions were made, such as incorporating better technology with electronic prescriptions to communicate better using mobile devices. The final key point that was mentioned was that participants demanded prescribers listen to them more and consider their opinions.

The final point made by participants contradicts the findings in terms of the patient experience. The findings in the study did show that most participants felt their opinions were considered, yet in suggestions to improve their experience, it was repeated that opinions were not taken seriously. This again is a fundamental point of communication between the prescriber and the patients to ensure satisfaction, self-management and patient safety.[30]

Limitations

This study had some limitations, of which may have affected the results. This was due to the limited time available for data collection, resulting larger proportion of females. Interviews could have been carried out instead of a questionnaire to give more time for the participants to engage and give more detailed answers and insights into both their expectations and experiences. Perspectives from prescribers of all backgrounds should be taken into consideration and enhanced interviews with different patients, more so patients with long term conditions, to identify more areas need for improvements.

Conclusion

Patients favour doctors to be prescribed by over nurse practitioners and independent pharmacist prescribers. Patients seem not to understand the meaning of patient empowerment and interpret it more so with controlling the prescriber' s actions. Critical to improving medication-related outcomes is patient empowerment to improve self-care and it appears clear that greater public awareness of this is required. Non-medical prescribers must contribute to this and earn public acceptance through better outcomes.

Declaration of interests

All authors declare no known conflict of interest.

References

1. Goodwin, N., Dixon, A., Poole, T., Raleigh, V. Improving the quality of care in general practice, King' s Fund, London, 2011. [online] Available from: https://www.kingsfund.org.uk/sites/default/files/improving-quality-of-care-general-practice-independent-inquiry-report-kings-fund-march-2011_0.pdf (Accessed 20 March 2020).
2. Review of Prescribing, Supply and Administration of Medicines (Crown Report), Department of Health, London, UK, 1999. [online] Available from: https://webarchive.nationalarchives.gov.uk/+/http://www.dh.gov.uk/en/Publicationsandstatistics/Publications/PublicationsPolicyAndGuidance/DH_4077151 (Accessed 20 March 2020).
3. Medicinal Products: Prescription by Nurses etc. Act 1992. HMSO. London UK, 1992.
4. The National Health Service (Pharmaceutical Services) Regulations 1992. HMSO, London, UK. 1992.
5. Griffith, R., Legal requirements for the prescribing and administration of medicines, Brit J Commun Nurs, 2007, 12(10), 477–481.
6. Rahman, M. S., How did pharmacists become prescribers? UK 2019. [online] Available from: https://www.guidelinesinpractice.co.uk/home/how-did-pharmacists-become-prescribers/454658.article (Accessed 18 March 2020).
7. Department of Health. Improving Patients' Access to Medicines: A Guide to Implementing Nurse and Pharmacist Independent Prescribing within the NHS in England, Department of Health, London, 2006. [online] Available from: https://webarchive.nationalarchives.gov.uk/20130105033522/http:/www.dh.gov.uk/prod_consum_dh/groups/dh_digitalassets/@dh/@en/documents/digitalasset/dh_4133747.pdf (Accessed 20 March 2020).
8. Health and Social Care Act 2001 [Act of Parliament]. HMSO London, UK, 2001.
9. The Medicines for Human Use (Prescribing) (Miscellaneous Amendments) Order 2006 [Act of Parliament]. HMSO, London, UK, 2006.
10. The Misuse of Drugs (Amendment No.2) (England, Wales and Scotland) Regulations 2012 [Act of Parliament]. HMSO, London, UK, 2012.
11. Nurse and pharmacist independent prescribing changes announced, Department of Health and Social Care (DHSC), London, UK, 2012. [online] Available from: https://www.gov.uk/government/news/nurse-and-pharmacist-independent-prescribing-changes-announced (Accessed 20 March 2020).
12. NHS England (NHS), Royal College of General Practitioners (RCGP) and Health Education England (HEE), General Practice Forward View, NHS England, UK. 2016. [online] Available from: https://www.england.nhs.uk/wp-content/uploads/2016/04/gpfv.pdf (Accessed 20 March 2020).
13. NHS England (NHS), Clinical Pharmacists, NHS England, London, UK 2020. Available from: https://www.england.nhs.uk/gp/our-practice-teams/cp-gp/ (Accessed 20 March 2020).
14. Cooper, R., Guillaume, L., Avery, T., Anderson, C., Bissell, P., Hutchinson, A., Lymn, J., Murphy, E., Ward, P., Ratcliffe, J., Non-medical Prescribing in the United Kingdom, J Ambulat Care Man, 2008, 31(3), 244–252.
15. The RCGP Curriculum, Royal College of General Practitioners (RCGP), London, UK, 2019. [online] Available from: https://www.rcgp.org.uk/training-exams/training/gp-curriculum-overview/online-curriculum.aspx (Accessed 20 March 2020).
16. Funnell, M. M., Anderson, R. M., Arnold, M. S., Barr, P. A., Donnelly, M., Johnson, P. D., Taylor-Moon, D. and White, N. H. Empowerment: An Idea Whose Time Has Come in Diabetes Education, Diabet Ed, 1991, 17(1), 37–41.
17. Funnell, M. M., Anderson, R. M. Empowerment and Self-Management of Diabetes, Clin Diabet, 2004, 22(3), 123–127.
18. Soares, A. A. Patient empowerment can lead to improvements in health-care quality, Bulletin of the World Health Organization, 2017, 95(7), 489–490,
19. Royal College of General Practitioners (RCGP), The 2022 GP: A Vision for General Practice in the future NHS, Royal College of General Practitioners, London, UK, 2013. [online] Available from: https://www.rcgp.org.uk/campaign-home/~/media/files/policy/a-z-policy/the-2022-gp-a-vision-for-general-practice-in-the-future-nhs.ashx (Accessed 20 March 2020).
20. Smith, D., Lovell, J., Weller, C., Kennedy, B., Winbolt, M., Young, C., Ibrahim, J. A systematic review of medication non-adherence in persons with dementia or cognitive impairment. PLOS ONE, [online] 2017, 12(2), p.e0170651.
21. European Patients Forum Background Brief: Patient Empowerment, European Patients Forum, Brussels, Belgium, 2015. [online] Available from: https://www.eu-patient.eu/globalassets/campaign-patient-empowerment/briefing_paperpatient-empowerment_final_external.pdf (Accessed 29 November 2019).
22. Agner, J., Braun, K. L. Patient empowerment: A critique of individualism and systematic review of patient perspectives, Patient Educ Couns, 2018. 101(12), 2054–2064.
23. Hobson, R. J., Scott, J., Sutton, J. Pharmacists and nurses as independent prescribers: exploring the patient' s perspective, Fam Pract, 2010, 27(1), 110–120.
24. Castro, E. M., Van Regenmortel, T., Vanhaecht, K., Sermeus, W., Van Hecke, A. Patient empowerment, patient participation and patient-centeredness in hospital care: A concept analysis based on a literature review, Patient Educ Couns, 2016, 99(12), 1923–1939.
25. Crawford, M. J., Rutter, D., Manley, C., Weaver, T., Bhui, K., Fulop, N., Tyrer, P. Systematic review of involving patients in the planning and development of health care, Brit Med J, 2002, 325(7375), 1263–1265.
26. Fudge, N., Wolfe, C. D. A. McKevitt, C. Assessing the promise of user involvement in health service development: ethnographic study, Brit Med J, 2008, 336(7639), 313–317.
27. Nilsen, E. S., Myrhaug, H. T., Johansen, M., Oliver, S. and Oxman, A. D., (2006). Methods of consumer involvement in developing healthcare policy and research, clinical practice guidelines and patient information material, The Cochrane DB Syst Rev, 2006, 3, CD004563.
28. Foley, H., Steel, A. Patient perceptions of patient-centred care, empathy and empowerment in complementary medicine clinical practice: A cross-sectional study, Advances in Integrative Medicine, 2017, 4(1), 22–30.
29. Heisler, M., Bouknight, R., Hayward, R., Smith, D. Kerr, E. The relative importance of physician communication, participatory decision making, and patient understanding in diabetes self-management, J Gen Intern Med, 2002, 17(4), 243–252.
30. Yeh, M.-Y., Wu, S.-C. Tung, T.-H. The relation between patient education, patient empowerment and patient satisfaction: A cross-sectional-comparison study, Appl Nurs Res, 2018, 39, 11–17.
31. Anderson, R. M., Funnell, M. M., Butler, P. M., Arnold, M. S., Fitzgerald, J. T., Feste, C. C. Patient empowerment: Results of a randomized controlled trial, Diabet Care, 1995, 18(7), 943–949.
32. Bravo, P., Edwards, A., Barr, P. J., Scholl, I., Elwyn, G. McAllister, M. Conceptualising patient empowerment: a mixed methods study, BMC Hlth Serv Res Eng, 2015, 15(1), 252,
33. Sande-Meijide, M., Lorenzo-González, M., Mori-Gamarra, F., Cortés-Gago, I., González-Vázquez, A., Moure-Rodríguez, L., Herranz-Urbasos, M., (2009). Perceptions and attitudes of patients and health care workers toward patient empowerment in promoting hand hygiene, Am J Infect Cont, 2009, 37(8), A14.