

Intervention

The intervention is predicated upon a participatory approach which guides stakeholders through an iterative cycle of inquiry and action. The process is structured to promote both collaborative inquiry and the co-production of joint proposals and commitment to their enactment. The participatory cycle is initiated through a moderated structured meeting with professional and patient participants from 6 general practices, who are organised in one of 12 GP practice clusters in a Scottish health board. One GP partner from each practice, all three senior practice pharmacists working across the six practices and 20 patients (or their carers) affected by polypharmacy will be invited to participate. The half-day meeting will be conducted in three parts as described below:

Phases	Activity/Task	Mode	Aim	Orientation
	ARRIVAL & INTRODUCTORY CONTEXT - Research team will share the origins, rationale and potential value of the project.	In stakeholder groups	What we would like to achieve today? Develop a shared understanding of the need for collaborative GP/pharmacist approaches to manage risky prescribing and polypharmacy.	What brings us here?
Phase 1	COLLABORATIVE INQUIRY What are the trends, issues and practices that affect the management of polypharmacy?	Plenary Dialogue - in stakeholder groupings	Share stories, perspectives and constraints as they are experienced by different stakeholders.	Past & Present
	What practices and relationships do we value in the current system? What challenges is?	Stakeholder groupings - shared in plenary	Develop a mutual appreciation of how current ways of working affect others, giving them the opportunity to express their priorities.	
Phase 2	IMAGINING THE FUTURE What does a well-managed polypharmacy system look like now we have achieved the changes/improvements?	In 'Practice groups - i.e. mixed groups of the different stakeholders (patients, pharmacists, GPs, carers etc.)	Have the stakeholders' voices reflected in the creative negotiation about how the system will be organised in future and generate 'double' visions of an enhanced approach to the management of risky prescribing.	Future
		Creative presentations which generate a vivid sense of what's happening 'now' [i.e. this future]	Create examples of what the enhanced management of polypharmacy looks like and 'notice' what we did to make it happen.	
Phase 3	ACTION PROPOSALS Declaration and sharing of specific proposals for action.	Practice groups (shared in plenary)	The 'Action' part of co-production Design the features of the future polypharmacy system and facilitate commitment	Action
	Concluding commitment of each practice plan and who will do what. Brief outline of the made and timeline for reviewing progress and effects.	Practice groups (shared in plenary)	Open commitment of what we will do to implement: an enhanced approach to the management of risky prescribing and establish the review cycle to monitor the desired change.	Review

Strategy for change

The output of the workshop will be an action plan that participants commit to implement in the following 12 weeks, followed by a participatory review of what has been achieved as well as an exposition of the challenges encountered. The action plan will include a strategy to engage other professionals in each practice. All participants will be invited to complete a survey and reflect on the value and key characteristics of this participatory approach and its perceived effectiveness in stimulating the adoption of the intervention by practices. Interviews will be conducted at 8 to 12 weeks after the workshop in order to identify barriers and facilitators to the implementation of the action plan.

Measurement of improvement

Progress in reviewing and reducing high-risk polypharmacy will be measured remotely via an informatics tool, which will be available to all participating practices. Outcomes measured will be the proportion of patients with high-risk polypharmacy who received a medication review as well as reductions in high-risk polypharmacy in patients identified at the start versus at 12 week follow up.

Effects of changes

The approach will be optimised and rolled out as of April 2017 with the aim of stimulating collaboration between pharmacists and general practitioners in ways that are acceptable to patients. Preliminary data will assess the extent to which the approach has stimulated desired changes in practice, any barriers or facilitators encountered and the reductions in high-risk polypharmacy. We anticipate that improved systems for identifying and managing high-risk polypharmacy will substantially reduce preventable drug related adverse event.

Lessons learnt

Extending the clinical workforce in primary care by increasing pharmacists' responsibilities is a plausible way to alleviate the challenges that a declining number of general practitioners face when managing an increasing number of patients with multimorbidity and polypharmacy. This study will test a strategy designed to overcome anticipated barriers to such collaboration and includes assessment of asymmetrical personal relationships, shifting inter-professional boundaries and associated communication problems.

Messages for others

Innovative improvements could improve current systems by making them more efficient, but their longer term viability requires a more radical reconfiguration of partnership working that accounts for all intrinsic and extrinsic factors for change. Co-creating the change with patients and carers is essential throughout the life of the project, because their knowledge and experiences provide a powerful lever for improving and redesigning how health professionals deliver medication reviews. Embedding participatory approaches into quality improvement could be an effective approach to enriching the experiences of patients and carers as well as enhanced satisfaction and achievement for professionals.