Rapid Review - What is the evidence for the Feasibility Appropriateness Meaningfulness Effectiveness and (Cost) Effectiveness of group clinics/group visits for patients with chronic conditions?

Background

This proposal seeks to address a topic identified by the Chief Medical Officer. The purpose of the evidence synthesis is to identify the potential for group approaches in delivering health services to patients with chronic conditions.

Group clinics are a form of delivering specialist-led care in groups rather than individual consultations. They may include aspects of clinical management (for instance, adjusting medication in light of health status information) as well as patient education and support. Over the past decade, several models for group medical visits have emerged, mainly in managed care environments. Some of these models originated in the care of the frail elderly, a population that suffers from many chronic illnesses and co-morbidities. These have been widely used in the US, largely for people with long term conditions. Early findings suggested potential for considerable cost savings, equivalent or improved outcomes and higher levels of patient/staff satisfaction. Later studies have not always replicated these effects.

Group clinics are used to replace individual patient consultations with a group session, focused on management of an ongoing condition and advice. In the UK, this is linked to a wider concern to modernise outpatient services, which account for over ninety million episodes every year and increase year on year outstripping that for inpatient care (Health and Social Care Information Centre 2013). Much of this activity is around monitoring and management of people with long term conditions, such as arthritis or diabetes. Questions have been raised concerning the appropriateness of outpatient appointments. Two thirds of patients not attending clinics are for follow-up appointments (HSCIC 2013), suggesting scope for improvement. The group clinic represents one suggested initiative to improve efficiency and enhance patient satisfaction.

In the UK, there is little published evidence on impact and lack of good quality information on the range and scale of group clinic activity in different specialties. A rapid review is needed which would combine published evidence of different types, including descriptive or qualitative studies, with grey literature.

The general acceptance and future of group medical appointments requires a systematic investigation of research evaluating their usefulness and costs, not only financially, but in terms of professional training, patient satisfaction, and outcomes.

Terminology:

Group clinics are a potential method of integrating self management support with routine clinical care.

Group medical visits are defined as multiple patients seen together while in the same clinical setting. Group visits include not only group education and interaction but also most elements of an individual patient visit, such as the collection of vital signs, history taking and physical exam.

Shared medical appointments (SMAs), a subgroup of group medical visits, involves "groups of patients meeting over time for comprehensive care, usually involving a practitioner with prescribing privileges, for a defining chronic condition or health care state". Components of SMAs include educational and/or self-management enhancement strategies, paired with medication management, in an effort to achieve improved disease outcomes.

Cooperative health care clinics (CHCCs) are generally used to provide care to elderly patients with chronic conditions or who frequently utilize medical resources.

Drop-in group medical appointments (DIGMAs) are composed of different patients from meeting to meeting who "drop in" when they have a specific medical need. These groups may focus on a specific diagnosis, or they may target all chronically ill patients within a given practice. DIGMAs typically last for 90 minutes and involve 10 to 15 patients.

Rapid review process

A rapid review is undertaken over a short time frame with a streamlined methodology. This streamlined methodology is a necessary compromise from a conventional systematic review. Harker and Kleijnen (2012) advise that a rapid review should present a "clear and transparent description and discussion of methodology utilised and acknowledge any limitations" (p.406). A rapid review seeks to identify the most important and significant contributions to understanding of a programme or intervention, rather than a comprehensive account of all relevant research such as would be available from a *systematic* review.

The proposed rapid review will not attempt to identify **all** relevant evidence or to search **exhaustively** for all evidence that meets the inclusion criteria; instead the search approach will aim to identify the key evidence of most relevance to the review question. Relevance may be interpreted in multiple ways; in this particular context we will seek to address a narrow and tightly defined question, as captured by the PICO formulation, to examine key items of quantitative, qualitative and theoretical literature and, critically, to ensure that selection of items for inclusion is performed independently of either the direction or nature of results and of factors empirically

known to influence the direction or interpretation of results (e.g. sample size, funding source, etcetera).

For logistic reasons this rapid review will examine the evidence through the "lens" of randomised controlled trial evidence. Data extraction and quality assessment will be performed on the randomised controlled trials and those interventions demonstrated as actually, or potentially, effective will then be investigated in further detail with regard to feasibility, acceptability, meaningfulness and cost effectiveness. This step-wise approach differs from that typically explored within conventional systematic reviews where evidence identification and synthesis efforts might be more evenly distributed across the full range of potential interventions, including those with limited evidence for effectiveness. In addition, where gaps in the randomised controlled trial evidence are specifically identified, we will examine indicative evidence from observational studies, qualitative research and cost studies to indicate the extent to which candidate interventions are likely to be feasible, appropriate and meaningful if subsequently demonstrated to be effective by future trial evidence.

Purpose of review: The purpose of this rapid review is to examine the available evidence for use of group clinics with patients who have chronic health conditions.

Review question

The review question is as follows:

> What is the current evidence for the Feasibility Appropriateness Meaningfulness Effectiveness and Cost Effectiveness of group clinics/group visits for patients with chronic conditions?

Specifically:

- What different models of group clinic exist (in the UK and the US)?
- What evidence exists about the outcomes and cost-effectiveness of these clinics?
- What evidence exists about patient experience of these clinics?
- What are the possible explanatory mechanisms for any reported improvements in outcomes?

Objectives

The Primary Objective of this rapid review is to

- Identify evidence of effectiveness, or likely effectiveness, of group clinics and where this is identified, to review evidence of impact, in particular cost-effectiveness of group clinics. This might include measures of efficiencies and clinic/staff time, use of services (hospitalisation rates), patient outcome (and

surrogate clinical measures), behaviour, self-efficacy, quality of life and other patient and staff satisfaction indices

Additional Objectives include:

- To understand how group clinics have been conceptualised and to identify different models of use from a review of academic and grey literature
- To relate emerging findings on what works to current practice
- To identify research gaps for funding bodies and researchers

Scope

This review would cover all group clinics which include a component of clinical advice and management, as well as peer learning and support, for chronic health conditions. Terms (largely US) include: group medical visits, cluster visits, shared medical appointments, cooperative health care clinics. The focus will be on specialist-led services (i.e. replacing hospital outpatient appointments). This might include forms of enhanced primary care, such as specialist smoking cessation clinics which include aspects of clinical management (advice on nicotine replacement therapy) as well as behaviour change support. Patient education and support groups (including expert patient groups) focused on self-management with no clinical advice or input, are not the main focus of this review although there may be some overlap in activity. (See below for Inclusion and Exclusion Criteria)

Appendix 1 sets out the FAME framework which will be used to guide the review process. This framework will allow us to:

1. Define the scope of the search strategy
2. Define inclusion and exclusion criteria to specify types of studies will be included in the final report
3. Construct summary tables of all included studies to present key information and findings
4. Synthesise the evidence from the included studies

Methods:

Search

Our initial approach will be to develop a search strategy that optimises the trade-off between Sensitivity and specificity based on terms relating to group clinics, group visits etcetera (See Appendix 1). Given the variation in terminology our review will refocus efforts away from the construction of an exhaustive set of minimally relevant search sets towards tenacious follow up of relevant references and citations. In this way we will identify the most relevant references within an abbreviated time period, thereby maximising the value of the rapid review. The search strategy is structured as follows:

- Population = adults or children with chronic health conditions
- Intervention = group clinics/visits
- Outcomes = any relevant clinical outcome; health services outcomes including utilisation and costs; staff and patient attitudes; patient satisfaction

Databases to be searched include: Medline, EMBASE, Cochrane Library, Web of Science (Science Citation Index and Social Science Citation Index) and CINAHL.

In addition to the database search as outlined above, we will also undertake the following to identify key evidence for the review:

- Liaison with topic experts.
- Citation searching on included papers and other key papers identified by topic experts.

Although follow up of reference lists is not always possible within a "rapid review" we feel that the variation in terminology and the tight focus of the intervention it will also be feasible in this case to perform:

- Scrutiny of reference lists of included primary studies and relevant systematic reviews.
- Inspection of Trials registers

Inclusion and Exclusion Criteria

The evidence included in the review will include both quantitative and qualitative studies to address the key domains of the FAME framework. This will likely include randomised controlled trials, economic evaluations, qualitative studies and surveys. The included evidence will be restricted to OECD countries only to ensure relative health system comparability. Non-peer reviewed evidence will be tabulated, but not analysed, to give a picture of the emerging evidence base.

As bibliometric analysis identifies the sudden appearance of group visit studies at around 2000. Evidence will therefore be included if published between 1999-2014 in English. This will ensure that all relevant evidence will be included within the rapid review process.

The inclusion criteria can be summarised as follows:

Population = adults and/or children receiving health care services for one or more chronic health condition
Intervention = delivery of one or more services to a small group of patients (typically 8-10 patients) simultaneously. Only studies including the delivery of the intervention by one or more specialist health care professionals will meet the inclusion criteria of the review.
Comparator = other methods of organisation of treatment (with the exception of qualitative research and surveys, only studies with a comparator group will be included)
Outcome = patient outcomes; health services outcomes; patient and carer satisfaction; resource use.

Exclusions:

Population:

The review will not include group visits for healthy patient groups (ie those without an indication related to a chronic health condition) This exclusion will cover:

1. Pregnant women or those planning a pregnancy (unless they also have a chronic health condition such as diabetes)
2. Smoking cessation and other health promotion clinics

Delivery of intervention by peers or non-specialist HCPs - We will also exclude peer facilitated support groups since the intervention is not principally delivered by health care professionals (although they may contribute).

Setting of intervention: *Interventions will not initially be excluded on the basis of the setting for the group intervention, given the potential for very similar interventions to be delivered in the community or primary care setting as well as in hospital/outpatient settings. Although the review team has justifiable concerns about the additional literature likely to be identified if group approaches in primary care are included within the review scope we cannot identify a sound justification for excluding such studies on conceptual grounds particularly given that the setting for interventions and definitions of "specialist" care may cover a wide range of different settings.*

Data Extraction

Given the respective emphases of this review formal data extraction will only be employed for included randomised controlled trials. All other studies will be characterised according to demographic, intervention and outcome factors and the data tabulated. For the randomised controlled trials extracted data may include:

Patient factors: Age of the patient; severity of condition.

Intervention: No of patients in group; duration, components (e.g. education; information etc); clinical staff in attendance; others in attendance (e.g. carers)

Outcomes: To be completed clinical outcomes, health services utilisation resource use.

For literature that makes a conceptual contribution we shall examine such themes as: privacy/confidentiality; patient-physician relationship; situational factors; group dynamics; appointment considerations; group support; information exchange and roles of clinical staff etcetera.

Quality Assessment

All Randomised Controlled Trials will be formally assessed for quality. Other study designs will be evaluated for key methodological flaws that may have a bearing on the interpretation of findings. Such assessment will be indicative. This approach to

quality assessment is determined by the centrality of each type of evidence to the decision-making process i.e. if there is no evidence that the group clinic interventions work then acceptability to patients or staff, or indeed evidence on intervention costs, becomes non-critical.

Conceptual work

We propose to maximise the value of the conceptual work around how group clinics work by focusing on a composite case study of the single most reported application of group clinics, i.e. in diabetes care, i.e. to create a "logic model". We will create a rich and meaningful cluster of associated studies and thus explore the detail from the collective studies to arrive at an understanding of the mechanisms that impact on intervention effectiveness. In a secondary phase we will apply this conceptual framework to other group clinic contexts to assess the extent to which factors match with or differ with experience in diabetes.

Synthesis

Given the heterogeneity of disease conditions and models of service delivery for group clinics there will be no attempt to synthesise quantitative data through formal meta-analysis. The review will however provide an analysis of the quality of evidence, and the strength of conclusions which can be drawn from existing studies. Synthesis of studies will be based around the conceptual framework (e.g. logic model) to optimise opportunities to understand what group clinics are seeking to achieve and by what mechanisms.

Deliverables

The evidence synthesis will deliver the following:

1. A synthesis of the published evidence on group clinics
2. A "translational appendix" assessing the extent to which findings from non-UK studies might or might not apply to a UK context, informed by consultation with stakeholders
3. A conceptual framework or logic model to explore and understand the complexity of how group clinics are perceived to work.

Where identified during the course of the rapid review, the team will also document the extent to which group clinics are currently used in the UK, with which patient groups and in which specialties. This would inform the potential subsequent development of a taxonomy of existing models, beyond the life of this rapid review project.

Involvement of Experts

In order to sensitise a primarily U.S. based evidence base to a U.K. context, and to inform the "translational appendix", the review team will consult, at suitable points in the rapid review process, with appropriate stakeholders including, but not restricted to, a group of clinical experts on particular conditions and, possibly, the Principal Investigator or appropriate members of the project team on the NIHR Project

HS&DR - 11/1014/04: A rapid synthesis of the evidence on interventions supporting self management for people with long-term conditions.

Timelines:

Month	Activity
February 2014	Preliminary Searches
March 2014	Agreement of Scope
April 2014	Literature Searches & Sifting
May 2014	Follow Up of References; Coding
June 2014	Data Extraction
July 2014	Analysis
August 2014	Report Writing
September 2014	30th-Delivery of Report

Review Team:

Liddy Goyder Andrew Booth	Anna Cantrell Louise Preston Others to be added as required

Appendix One: Joanna Briggs Institute FAME Framework to ensure coverage of all relevant domains/evidence types (Pearson et al 2005:210)

Feasibility (F)[1]	Appropriateness (A)[2]	Meaningfulness (M) to specific populations, cultures and settings[3]	Effectiveness (E)[4]	Economic Evidence (EE)
Excluding Developing Countries	Staff Attitudes	Cultural values	Clinical Outcomes Health Services Outcomes (including Utilisation)	Costs Cost-Benefit

[1] "the extent to which an activity is practical and practicable. Clinical feasibility is about whether or not an activity or intervention is physically, culturally or financially practical or possible within a given context".

[2] "the extent to which an intervention or activity fits with or is apt in a situation. Clinical appropriateness is about how an activity or intervention relates to the context in which care is given."

[3] Evidence of meaningfulness – "the extent to which an intervention or activity is positively experienced by the patent. Meaningfulness relates to the personal experience, opinions, values, thoughts, beliefs and interpretations of patients or clients."

[4] "is the extent to which an intervention, when used appropriately, achieves the intended effect. Clinical effectiveness is about the relationship between an intervention and clinical or health outcomes."

Appendix Two: Search Strategy

1. Group + Medical + Visit
2. Group Medical Visit*
3. GMV
4. Shared Medical Appointment*
5. Group Appointments
6. Group Visit*
7. Diabetic Group Appointment*
8. Group medical appointment*
9. Diabetes Group Medical"
10. Group Visit*
11. Group Medical clinic*
12. Group medical care
13. Diabetes + Cluster Visit*
14. Group clinic*
15. Group Processes/ [combined with particular chronic conditions]

Appendix Three: References

The following reviews have already been identified:

Housden L, Wong ST, Dawes M. **Effectiveness of group medical visits for improving diabetes care: a systematic review and meta-analysis**. CMAJ. 2013 Sep 17;185(13):E635-44. doi: 10.1503/cmaj.130053. Epub 2013 Aug 12.

Jaber, R., Braksmajer, A., & Trilling, J. S. (2006). **Group visits: a qualitative review of current research**. *The Journal of the American Board of Family Medicine*, *19*(3), 276-290.

Brennan, J., Hwang, D., & Phelps, K. (2011). **Group visits and chronic disease management in adults: a review.** *American Journal of Lifestyle Medicine*, *5*(1), 69-84.

Riley, S. B., & Marshall, E. S. (2010). **Group Visits in Diabetes Care A Systematic Review.** *The Diabetes Educator*, *36*(6), 936-944.