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# SHERPA: a new model for clinical decision making in patients with multimorbidity

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# **DRAFT**

## **Lancet Hypothesis**

### **A New Model for Clinical Decision Making in Patients with Multimorbidity: SHERPA (Sharing Evidence Routine for a Person-centred plan for Action)**

#### **Abstract**

Healthcare professionals' clinical practice is steeped in both compassion and technical aspects of care, yet data on how to improve the care of patients with multimorbidity is limited(1). Two of the cornerstones of modern clinical practice – evidence-based medicine and the teaching of consultation skills - lack utility in making decisions with and for patients who have multimorbidity, especially in time-pressurised, metrics-dominated clinical environments. We have developed a new model which supports the translation of population-based, evidence-based medicine and complex consultation models to simpler, natural conversations about care appropriate for and agreed with individual patients.

#### **The problem**

In 1996 Sackett wrote<sup>1</sup> that “The practice of evidence-based medicine means integrating individual clinical expertise with the best available external clinical evidence from systematic research” and that “Increased expertise is reflected in many ways, but especially in more effective and efficient diagnosis and in the more thoughtful identification and compassionate use of individual patients' predicaments, rights, and preferences in making clinical decisions about their care.”

Two years later, Silverman, Kurtz and Draper published “Skills for Communicating with Patients”<sup>2</sup>. They argued that improving doctors' communication skills improves outcomes for both patients and doctors. Their Calgary-Cambridge model for consultations has since become the dominant model used for teaching consultation skills; working with patients as partners has become established as the desirable norm.

But evidence-based medicine has been described as “a movement in crisis”<sup>3</sup>, partly because guidelines - based on benefits for a population with a single disease – cannot resolve the dilemma of what is the optimal approach at this moment for an individual, and especially individuals with multimorbidity<sup>4</sup>.

And whilst communication skills training is present in most undergraduate and postgraduate curricula worldwide, translation in to real world clinical practice is problematic. In particular, it is hindered by the prevailing pressures in the clinical environment, which is not conducive to shared decision making through meaningful conversations. Barriers to implementation of shared decision making in multimorbidity include not only a lack of an overall framework, but that the skills training is rarely contextualised to areas of daily clinical practice<sup>5</sup>. Importantly, the Calgary – Cambridge consultation model has 78 items. Learning, understanding and using detailed theoretical frameworks are a necessary precursor to the

development of expertise, but truncation of such frameworks is needed for practical application. This truncation has not been explicitly developed. The net result is that when patients were asked “Did doctors talk in front of you as if you were not there?”, 28% answered “Some or all of the time”. And only just over 50% answered “Yes, definitely” when asked “Were you involved as much as you wanted to be in decisions about your care and treatment?”<sup>6</sup>.

Why does this matter? Patients with multimorbidity now dominate clinical practice. They have higher rates of mortality and lower quality of life than those with single conditions.<sup>7 8</sup> They report: significant treatment burden; feeling undervalued by professionals, and a limited understanding of their multiple conditions<sup>9 10</sup>. Clinicians also recognise the challenges of consultations in multimorbidity, highlighting the need for additional decision making skills, especially for complex judgements such as discontinuing medication<sup>11</sup>. Recent UK guidance from NICE on multimorbidity<sup>12</sup> helpfully provided aims for managing patients’ but little practical guidance for how healthcare professionals and patients should make decisions in that context.

## **The Hypothesis**

We have developed a framework (SHERPA; Sharing Evidence Routine for a Person-centred Plan for Action) that builds from Sackett’s principles and considers the communication skills needed to apply these, in a simple manageable way. The aim is to facilitate conversations between healthcare professionals and patients which lead to person-centred, evidence informed, interpretative collaborative decision making for all patients, but especially those with multimorbidity.

It was originally developed from our (EJ. RB) reflections on our own and others’ clinical practice, teaching evidence-based practice to GPs, and a model of care developed for complex psycho-social needs<sup>13</sup>.

We acknowledge other models or frameworks which have informed SHERPA or have components in common: the underlying principle of shared decision making<sup>14</sup>; the importance of a person-centred approach<sup>15 16</sup>, including an analysis of burden of care,<sup>17</sup> the interactions of diseases and drugs on each other and the importance of individualised goals<sup>18</sup>, and the need for an interpretative approach to clinical decision making.<sup>19</sup>

We believe a great strength of the model is that it consists of just 3 steps:-

### **Step 1: Share problems**

The initial step is for practitioner and patient to discuss the problems and issues as they see them, going beyond a list of patients’ existing diagnoses or initial presentation to include symptoms, emotions or thought patterns, behaviours, social issues and care burden. The aim is for a transformative discussion and a shared understanding about the relative importance of the issues.

It is also an opportunity to simplify a complex picture by clustering groups of diseases such as hypertension and hypercholesterolemia, or symptoms such as anxiety with poverty, housing and isolation. Pathophysiological explanations might help a patient better understand their body, and a patient's perspective on their social situation transforms the doctor's view.

### **Step 2: Link problems**

Next the clinician and the patient work together to link the issues. Sketching these out on paper can be helpful. Judgements are needed on how the strength of the links vary. They may be uni- or bi- directional, there may be positive or negative feedback loops, while some problems may appear unconnected. Time between consultations helps both to reflect and enables the patient to take more ownership.

This step is also transformative, providing both parties with a written, whole person understanding of the patient's health. It can also allow for constructive disagreement or uncertainty relating to unresolved issues.

### **Step 3: Plan together**

The patient is encouraged to state their priorities and these should drive decision making. Priorities might include reducing treatment burden, changing behaviour patterns or achieving positive social goals, as well as managing physical symptoms. The clinician's role is neither paternalistic nor passive, but that of a guide and coach. The role includes being provider of clear information which may be about prognosis, the inherent uncertainty of and potential magnitudes of treatment benefits and risks, and supporting the patient to weigh up the advantages and disadvantages of different treatment options.

The patient's contributions are important; developing a shared understanding about their motivation, personal strengths, physical or cognitive capacity, and individual desire for active or passive participation in decision making will guide the extent of the patient's involvement.

The three steps, Share, Link and Plan, each requires judgments to be made by clinician and patient together, as neither party has a monopoly on key information, nor do they have identical values and preferences. The steps can be iterative rather than sequential. The model can be applied to new scenarios, or ongoing problems.

### **What are the principles on which SHERPA is based?**

The SHERPA model is underpinned by three principles which are used to translate population-based, evidence-based medicine and complex consultation models to simpler, natural conversations about care appropriate for and agreed with individual patients. Firstly, social, psychosocial and biological issues all need to be considered together as individual aspects of each problem (e.g. managing to live independently as an 84-year-old alongside new-onset atrial fibrillation) and holistically. Secondly, interpretations of different kinds of evidence and ways of knowing, often unmeasurable, need to be weighed interpretatively to

both prioritise problems and decide on management plans (e.g. a feeling of uselessness about being unemployed could be prioritised over a measurable cardiometabolic risk). Thirdly, and most radically, an explicit written analysis about how the biological psychological and social issues are causally linked for the particular individual is required (e.g. difficult relationships at work or at home are distressing and contribute to multiple functional symptoms and alcohol use).

### **Evaluating the hypothesis**

Evaluation is required to test if the SHERPA approach could deliver improvements in the wellbeing, experience of care and biomedical outcomes, especially for people with multimorbidity. SHERPA practice has a theoretical internal logic whereby care that is most likely to be helpful to this individual is prioritised by a combination of knowledge exchange and shared judgements by a patient and clinician, or a wider team of professionals and carers. Practicing in line with SHERPA is likely to require a multifaceted approach including ongoing practitioner and organisational support.

The research agenda is potentially very broad, complex and interdisciplinary - embracing the experience of illness, the psychology of evidence interpretation, the negotiation and sharing of evidence by clinicians and patients, and how to prevent harm from overdiagnosis and overtreatment.

Requirements are:-

- Small proof of concept studies of teaching and practice
- Iterative testing and formative evaluation in different practitioner and health care contexts to identify, adapt and further specify core and flexible adaptive components of both the model of practice and interventions to bring about change
- Development of complex intervention trial science – outcome domains and measures, trial design and feasibility or pilot studies;
- Potentially a fully powered pragmatic trial with patients clustered by groups of professionals such as primary care or hospital teams.

### **Summary**

The SHERPA model builds on existing principles of both consultation skills and Sackett's ethos of individualising each clinical decision taking account the patients predicament and preferences. It provides clinician and patient with a simplified, structured approach to reaching a mutual understanding and plan. It supports clinician and patient to make interpretative judgments about how and when to apply evidence to their situation. The shared understanding that emerges, along with a written diagram, can also potentially be used to deliver better care planning involving care teams. As a complex intervention based on both empirical and research evidence, it will require a broad evaluation programme to convince educators, policy makers and practitioners to move from a disease based approach to the SHERPA model.

**Conflict of interest statement:**

The authors have read and completed the ICMJE (International Committee of Medical Journal Editors) on declaration of interests and declare the following in the interest of transparency.

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NM works at Keele University on decision making supporting a PhD student working on multimorbidity consultations. That post is funded jointly by memorandum of understanding between NICE and Keele University.

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**Contributorship Statement:**

The initial model was derived from reflection by EJ and RB on their own practice, teaching evidence based practice to GPs and research consultations for complex needs, and analysis of existing approaches. EJ and RB wrote the first draft. In the second draft, NM re-wrote the abstract, problem sections and made significant further intellectual contributions. All authors subsequently provided feedback on subsequent versions and contributed to redrafting. All authors approved the final manuscript.

**Patient Involvement:**

The Peninsula Patient Involvement Group is the PenCLAHRC service user involvement group. The design of the SHERPA model drew on the experiences and preferences of members of the group. With support from EC the group discussed a draft version of the article. This was structured around 5 open questions. Their views were recorded and used to advise and inform review of the model.

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