Check for updates

STUDY PROTOCOL

REVISED The perspectives of patients and their caregivers on self-management interventions for chronic conditions: a protocol for a mixed-methods overview [version 2; peer review: 2 approved]

Ena Niño de Guzmán [iD][1,2], Laura Martínez García [iD][1,3], Ana I. González[4,5], Monique Heijmans[6], Jorge Huaringa[7], Kaisa Immonen[8], Lyudmil Ninov[8], Carola Orrego-Villagrán[2,4,5], Javier Pérez-Bracchiglione[9], Karla Salas-Gama[10], Andrés Viteri-García [iD][11,12], Pablo Alonso-Coello[1,3]

[1]Iberoamerican Cochrane Centre, Sant Pau Biomedical Research Institute (IIB-Sant Pau), Barcelona, 08025, Spain
[2]Universitat Autònoma de Barcelona, Barcelona, Spain
[3]CIBER de Epidemiología y Salud Pública (CIBERESP), Madrid, Spain
[4]Avedis Donabedian Research Institute (FAD), Barcelona, 08037, Spain
[5]Red de Investigación en Servicios de Salud en Enfermedades Crónicas (REDISSEC), Madrid, Spain
[6]Netherlands institute for health services research (Nivel), Utrecht, 3513, The Netherlands
[7]Hospital Arzobispo Loayza, Lima, Lima 15082, Peru
[8]European Patients' Forum, Brussels, 1040, Belgium
[9]Interdisciplinary Centre for Health Studies (CIESAL), Universidad de Valparaíso, Valparaíso, 2520000, Chile
[10]Hospital Santa Creu i Sant Pau, Barcelona, 08025, Spain
[11]Universidad UTE, Quito, 170527, Ecuador
[12]Cochrane Ecuador, Centro de Investigación en Salud Pública y Epidemiología Clínica (CISPEC), Quito, 170527, Ecuador

Open Peer Review

Reviewer Status ✔ ✔

	Invited Reviewers	
	1	**2**
version 2 (revision) 29 Nov 2021		✔ report
version 1 18 Feb 2020	✔ report	? report

1. **Milena Vainieri**, Sant'Anna School of Advanced Studies of Pisa, Pisa, Italy

Abstract

Introduction: Self-management (SM) interventions are complex interventions and one of the main components of high-quality chronic disease care for which the incorporation of the perspectives of patients and their informal caregivers is crucial. We aim to identify, appraise and synthesise the evidence exploring patients' and caregivers' perspectives on SM interventions. More precisely, we aim to 1) describe how they value the importance of outcomes of SM interventions, and 2) identify the factors that might impact on acceptability and feasibility of SM interventions based on their preferences and experiences.

Methods and analysis: We will conduct four mixed-methods overviews as part of COMPAR-EU, a European Union (EU) funded project aimed to identify the most effective and cost-effective SM interventions for chronic obstructive pulmonary disease (COPD), heart failure (HF), obesity, and type 2 diabetes mellitus (T2DM). We will

search in MEDLINE, CINAHL, and PsycINFO for systematic reviews of studies addressing patients' preferences on outcomes, or their experiences with SM alongside their disease trajectory or with SM interventions, published in English. Selection of studies and data extraction will be conducted in pairs. We will assess the overlap of studies and methodological quality. We will follow a three-step synthesis process: 1) narrative synthesis for quantitative evidence, 2) thematic synthesis for qualitative evidence, and 3) integration of findings in the interpretation phase. Additionally, we will consult on the relevance of findings with patients and their caregivers.
Systematic review registration: PROSPERO CRD42019117867

Keywords
Systematic Review, Self-Management, Chronic Diseases, Mixed-Methods Research, Patient Preferences, Outcomes

2. **Edward Zimbudzi** (iD), Monash University, Melbourne, Australia

Any reports and responses or comments on the article can be found at the end of the article.

Introduction

The global burden of chronic conditions constitutes a significant public health challenge that undermines social and economic development, accounting for almost 86% of deaths and 77% of the disease burden in the WHO European Region. The increasing healthcare demands of chronic conditions lead to the development of integrated healthcare models based on patient-centred care[1].

Self-management (SM) interventions are critical components of high-quality patient-centred care in chronic conditions[1-3]. SM can be defined as what individuals, families, and communities do to promote, maintain, or restore health and to cope with the disease or disability with or without the support of health professionals. It includes, but is not limited to, self-prevention, self-diagnosis, self-medication, and daily management of the disease and its disabilities[4]. Ideally, SM interventions support patients taking their individual needs and their specific context into account[5]. SM interventions are complex and multifaceted and may contain multiple topics, formats, and components (e.g. participants, family, facilitators, or technology) that interact with each other. Different outcomes can be defined to measure their impact based on the specific scope (e.g. behavioural, psychosocial, physiological, or utilisation outcomes) of the intervention[5,6].

An increasing body of evidence suggests that SM interventions have beneficial effects for patients with chronic conditions in terms of knowledge, the performance of SM behaviours, self-efficacy, health status[7] and quality of life[8]. However, what might be beneficial for some patients might be less beneficial for others; for that reason, it is necessary to identify which elements of SM interventions are effective and under what circumstances. Especially, it is important to consider the perspectives of patients and their caregivers to get insight into their values and preferences on specific healthcare alternatives[9-11].

Preference is conceived as the result of cognition, experience and reflection. Moreover, a specific preference is the consequence of what a person values[12]. In healthcare, patients' preferences can be defined as the qualitative or quantitative assessments of the relative desirability or acceptability to patients of specified alternatives or choices among outcomes or other attributes that differ among alternative health interventions[13].

The GRADE Evidence to Decision (EtD) framework is a decision-making tool that integrates the perspective of patients under the term *values,* defined as the relative importance of outcomes or health states of interest[14]. The patient's preference

for or against intervention is an implicit result of the relative importance of the health outcomes an individual connects to the intervention[14]. The patient's preference is also implicitly related to other aspects such as attitudes, expectations and beliefs. These aspects often fall within two other EtD criteria: *acceptability*, whether interventions are acceptable for patients; and *feasibility*, whether interventions are feasible to implement from the patient's point of view[13-15]. However, the methods to identify, collect and integrate this body of evidence in healthcare decision-making is still an evolving research area[10] which requires more practical guidance[16,17].

One method to find out the perspectives of patients and their caregivers is the development of a systematic review (SR) of studies exploring how they value the importance of outcomes or the features of the interventions that might affect their benefit-risk perceptions. This information can be obtained from quantitative and qualitative evidence reported as utility or non-utility measures (Table 1)[9,14,18]. Utility measures reflect how a respondent values or feels about a state of health[19]. Non-utility measures inform about patients' (or their informal caregivers') preferences and experiences with the intervention of interest derived from quantitative, qualitative or mixed methods studies[14].

Since 2010, there has been an increasing number of qualitative evidence synthesis (QES) published exploring patients' and their caregivers' experiences and perceptions regarding living with a chronic condition, some of these explicitly addressing the process of self-care[20]. There are also some SRs of studies exploring patients' preferences quantitatively for different health states[20].

However, summarising this body of evidence in a complete and comprehensible way for stakeholders might be challenging. In this context, the development of overviews might represent the most suitable option to summarise this broad and complex phenomenon. Previously published overviews addressing this research area were very diverse in the length and depth of scope[21-25]. However, some focused more on SM interventions and included only qualitative evidence for some specific conditions, such as stroke[24], rheumatic diseases, cancer and fibromyalgia[21]. Others explored the experience of living with a chronic condition using a quantitative[22] or qualitative approaches[23]. Moreover, some were focused on some specific symptoms (e.g. chronic non-malignant pain[25]). Even though previous research had enhanced knowledge on the perspectives of patients and their caregivers on chronic conditions and SM, we consider it is required to move towards a more comprehensive approach, applying a mixed-methods approach[26] including quantitative and qualitative sources of evidence, through developing overviews of systematic reviews.

Objectives

This study protocol is part of a large multi-method and multi-step project: "Comparing the cost-effectiveness of self-management interventions in four high priority chronic diseases in Europe: COMPAR-EU". This is a European Union-funded project aiming to identify the most effective and cost-effective

Table 1. Methods to ascertain values and preferences.

Measures	Source /type of data	Method
Health utilities	**Direct**	**Matching** - Allocation game - Standard gamble - Time trade-off - Visual analogue scale - Willingness to pay **Conjoint analysis** - Best-worst choice experiment - Binary choice experiments - Conjoint analysis - Full ranking exercise - Multinomial choice experiment - Probability trade-off
	Indirect	**Multi-attribute utility instruments** - EuroQoL-5D - Health Utilities Index 2S - Short-form-6D - PROMIS-29 **Quality of life tools** - EQ5D utility estimates from St. George Respiratory Questionnaire - Others
Non-utilities (preferences and experiences)	**Quantitative**	- Adaptive questioning - Direct choice - Ranking - Rating (e.g. numerical rating scales) - Survey
	Qualitative	- Focus groups - Interviews

Adapted from Zhang *et al.*[14]

SM interventions for patients living with chronic obstructive pulmonary disease (COPD), heart failure (HF), obesity or type 2 diabetes mellitus (T2DM).

Our main objective is to identify, appraise, and analyse the perspectives of patients and their caregivers on outcomes of SM interventions for the selected chronic conditions. To provide a more detailed assessment, we will conduct four overviews (one per chronic condition). Our specific objectives are 1) to explore how patients with one of the four chronic conditions, and their caregivers, value the importance of different outcomes of SM interventions, and 2) to identify the factors that might impact the acceptability and feasibility of SM interventions based on their preferences and experiences with SM through the disease trajectory and when taking part in SM interventions.

Methods and analysis

We will conduct four mixed-methods overviews of SRs according to the most updated methodological guidance from the Cochrane Collaboration[27–29], the Joanna Briggs Institute (JBI)[30] and key methodological references[31–34]. We adhere to the applicable items of the Preferred Reporting Items for Systematic reviews and Meta-Analyses Protocols (PRISMA-P) statement[35]. We registered this protocol in the PROSPERO registry: CRD42019117867. Any amendment to the protocol and the supporting rationale will be reported.

Eligibility criteria

Type of reviews. We will consider for inclusion: 1) quantitative SRs 2) qualitative evidence syntheses QES; and 3) mixed methods research synthesis (MMRS). To be eligible for

inclusion, the SRs should report as a minimum: 1) the search strategy for at least one database; 2) the list of included studies; and 3) the methods applied for synthesis[36].

Context/setting. We will include SRs of studies without geographical restriction and will include all settings, except those confined to inpatient care.

Population/perspectives. We will limit inclusion to SRs of studies conducted in adult patients (18 or older) with one or more of the chronic conditions of interest (COPD, HF, obesity and T2DM), without restricting by disease severity. We will consider SRs assessing multiple chronic conditions (e.g., patients with more than one of the chronic conditions of interest or patients with chronic conditions of interest plus other chronic conditions) We will exclude SRs focused on patients with the chronic conditions of interest and cancer comorbidity or severe mental disorders. We will include SRs exploring the perspectives of patients or their informal caregivers. We will include SRs assessing both perspectives if these are reported separately. We will exclude SRs addressing only healthcare providers' or healthy population perspectives.

The phenomenon of interest/intervention. We will include SRs aimed at exploring the perspectives of patients and their caregivers on the importance of outcomes of SM interventions. Their perspectives are based on their values, preferences and experiences. As described by Zhang *et al.*[14], preferences for or against intervention are implicitly related to the relative importance people place (or value) on the expected or definite health outcomes connected to a specific intervention. We define SM intervention as supportive interventions systematically provided by healthcare staff, peers or laypersons to increase patients' skills and confidence in their ability to manage a chronic condition. SM interventions aim to prepare patients (and, where appropriate, informal caregivers[37]) to actively participate in the management of their disease[37,38].

We will apply the COMPAR-EU taxonomy for the domain of outcomes of SM interventions, with 35 elements categorised in seven subdomains[39]: 1) empowerment, 2) level of fulfilment of the expected SM behaviours, 3) clinical outcomes (progression of disease, complications, adverse events, and mortality), 4) quality of life of patients and caregivers, 5) perceptions and satisfaction with care, 6) health care use, and 7) cost. We will not exclude SRs addressing other outcomes not listed in the COMPAR-EU taxonomy. Instead, these will be incorporated as a new category if applicable.

Comparison. While not addressed as an objective in these overviews, if reported, we will consider usual care as the comparison.

Outcomes. We will include SRs evaluating studies reporting any of the following outcomes:

- Utility measures for outcomes of SM interventions; defined as how patients or their caregivers value the

importance of different outcomes. Utilities are measures of the value ascribed to states of health, most often scaled from "0", representing death, to "1", representing perfect health; they reflect the health-related quality of life of the individual at a particular point in time[40]. Methods to obtain utilities can be: a) direct methods such as matching methods (i.e. standard gamble, time trade-off, or rating scales), or conjoint analysis (i.e. discrete choice experiments, contingent valuation and willingness to pay, probability trade-off, paired comparison); or b) indirect methods with multi-attribute instruments like the EuroQual-5-dimension (EQ-5D), the Short Form-6-Dimension (SF-6D), Health Utilities Index (HUI-3)[14], the Patient-Reported Outcomes Measurement Information System (PROMIS-29)[41], among other quality of life tools which transform results across several domains into utilities (Table 1).

- Non-utility measures for outcomes of SM interventions, which are the result of the assessment of preferences and experiences of patients and their caregivers with SM in the disease trajectory or with SM interventions through quantitative (e.g. surveys), qualitative (e.g. interviews, focus groups), or mixed methods studies[14] (Table 1).

Information sources and search strategy
We will design and execute a literature search strategy in MEDLINE (accessed through PubMed), the Cumulative Index of Nursing and Allied Health Literature (CINAHL), and PsycINFO. The leading search concepts will be: 1) the perspective of patients, for which we will include a sensitive content search strategy previously published[42]; and 2) specific terms for each chronic condition. We will apply methodological filters limiting to SRs, retrieving references using the filters available in each database, and to qualitative research, synthesis using non-controlled terms. We will consider English-language studies for inclusion without restriction on publication date. We will hand-search the reference list of overviews identified through our search strategy and conduct a forward citation search of the included studies in Scopus[43]. We will establish regular search update alerts. Studies identified through these alerts and meeting the eligibility criteria will be incorporated until the stakeholders' consultation starts.

Selection of studies
We will manage references with Endnote X9. Pairs of authors will conduct the screening of references and selection of studies. After initial calibration with 10% of retrieved references, one author will independently select references to be included, and a second author will check the final list of included and excluded studies with reasons. Disagreements will be solved by discussion or with the help of a third author.

Data collection
We will extract data using Nvivo 12 Pro[44]. We will design and pilot-test one form for each type of SR (quantitative, qualitative or mixed methods). After initial calibration between pairs of authors, one author will extract data from the included

reviews, and a second author will check the data against the full text for accuracy. We will solve disagreements by consensus or with the help of a third author. We will collect the following information from each type of SR:

- General characteristics: country of contacting author, year of publication, aim or phenomenon of interest, search databases, search timeframe, the number of included studies, and the number of participants.

- Methodological characteristics: the type of SR, the method of synthesis, methods of primary studies, the quality assessment tool, the certainty of the evidence assessment tool, and their findings.

- Settings: location/s (countries) of primary studies, and the context of included studies.

- Participants' main characteristics: type of respondent, the severity of the disease, demographic characteristics, and comorbidities.

- Intervention characteristics: target population/s, support technique/s, support delivery method/s, and expected patient (or caregiver) self-management behaviours.

- Themes or findings related to outcomes of SM interventions: 1) quantitative data, including health utility measures (mean, standard deviation, confidence interval) and the methods applied to obtain them; and 2) qualitative data extraction, this process overlaps with the first stage of thematic synthesis (Figure 1).

In the extraction process, we will record the extent of relevant information not reported (e.g. information about age), but we will not take additional steps to get further information from primary studies[29,45]. For discrepant data (two or more SRs reporting different data for the same primary study), we will extract data from the SR with the highest methodological quality, and if similar methodological quality, from the review with the most updated search[45]. For discrepant methodological quality assess-
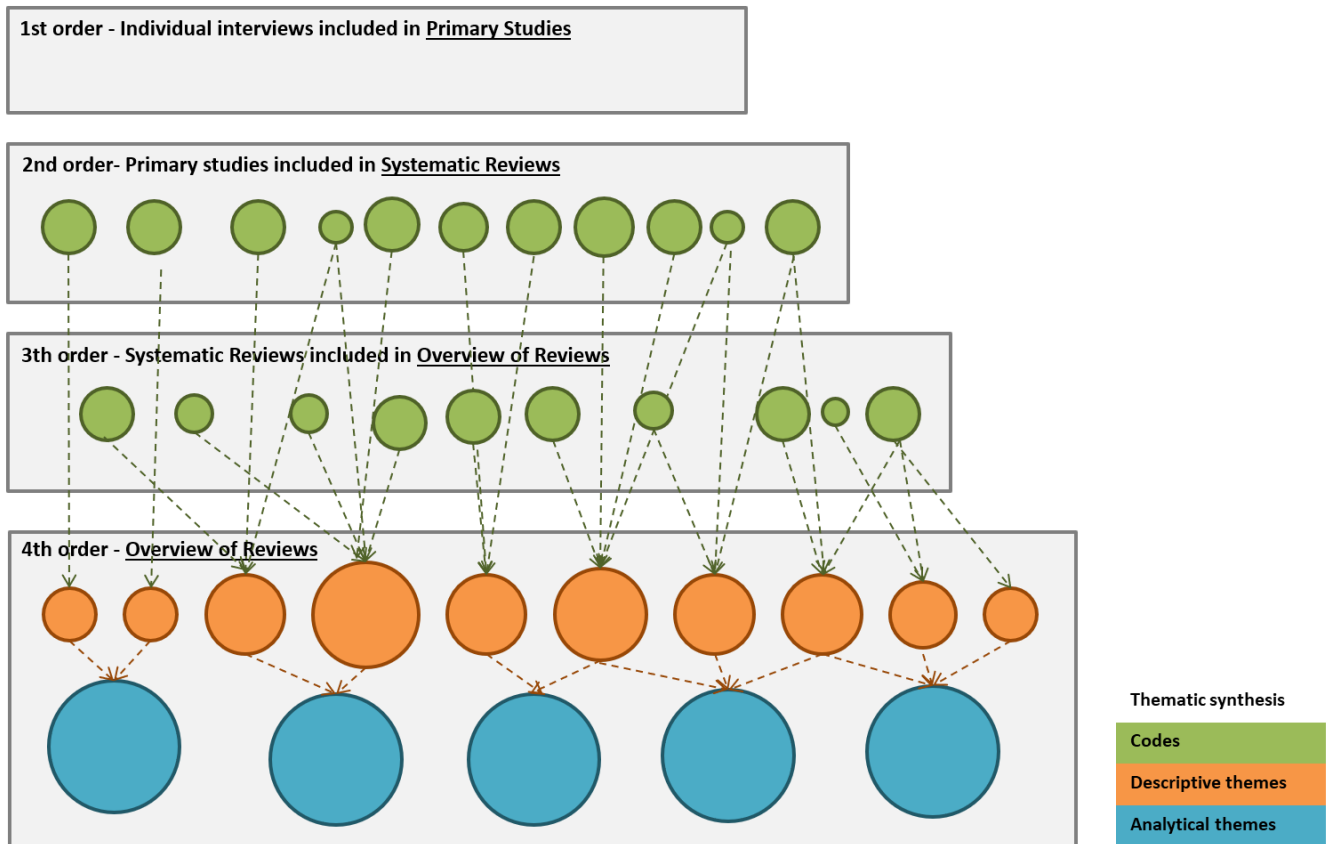
Levels of Interpretation

Figure 1. Thematic synthesis stages and levels of interpretation. Levels of interpretation: adapted from Pierce *et al.*[24], thematic synthesis stages based on Thomas and Newman[46].

ment (two or more SRs using different tools or reporting different results for the same primary study), we will report both results.

Assessment of overlapping primary studies

We will assess the overlapping primary studies (studies appearing in more than one review) using a citation matrix[47]. We will extract the references of the primary studies answering our research question within all selected reviews, calculate the "corrected covered area" (CCA), and describe the extent of overlap (slight [0 to 5], moderate [6 to 10], high [11 to 15], or very high [over 15])[48]. We will include all SRs that meet the eligibility criteria regardless of overlap[49]. We will conduct this assessment using Excel files.

For duplicated data (two or more SRs reporting the same data from the same primary study or with over 25% of overlap within primary studies), we will include data only once, selecting the one with the most complete and detailed data[49].

Assessment of methodological quality of included systematic reviews

We will use the JBI Critical Appraisal Checklist for Systematic Reviews and Research Syntheses to test the quality of the included reviews[30]. The JBI Checklist, which comprises 11 items, is a tool to assess the methodological quality of both quantitative SRs and QES[30]. After initial calibration, one author will independently apply this checklist, and a second author will check results to validate scores. We will solve disagreements through consensus or with the help of a third author. We will adopt a previously published scoring method[50] that allocates "one point" to positive responses and "zero points" to negative or unclear responses, and we will calculate the percentage of positive responses for each review (sum of positive responses divided by total items tested). The quality of each SR will be ranked based on the following criteria: 0–33% of criteria met (low quality), 34–66% of criteria met (medium quality), and 67% or more of criteria met (high quality)[50]. We will not exclude SRs based on their quality scores.

Data synthesis and reporting

To synthesise findings from selected SRs, we will use a mixed-methods three-step approach, with a convergent parallel analysis of quantitative and qualitative evidence[51].

Step 1: Quantitative evidence. To analyse and synthesise quantitative findings (utility and non-utility data), we will use narrative synthesis[52]. We will calculate descriptive statistics (mean, SD for variables with a normal distribution and the median, interquartile range, for other distributions).

For reporting, we will present results in summarised tables (grouping by relevant categories of outcomes). We will plot reported results, e.g. mean values, 95% confidence intervals and I^2 statistic for heterogeneity (if pooled), or the range of mean values or other measures (if not pooled) across SRs, the number of studies and the number of respondents for each outcome. Where possible we will present results by country of study, location, type of respondent (patient or caregiver),

respondents' characteristics (sample size, the severity of disease), and methods used. We will perform statistical analyses using STATA software V.14[53].

Step 2: Qualitative evidence. We will analyse and synthesise qualitative data using a thematic synthesis[46] approach using NVivo 12 Pro[44]. The levels of analysis will comprise second-order (primary studies) and third-order SRs constructs[24,54] (Figure 1). We will not specify any *a priori* theme.

The synthesis process will follow the three stages of thematic synthesis[46], the first two taking place concurrently: 1) text coding - line-by-line coding of the text of each SR; 2) developing descriptive themes; 3) re-interpretation and synthesis of this newly organised information, to produce analytical themes that go beyond the findings of the SRs authors (overview of SRs) (Figure 1). For this step, we will conduct a collaborative analysis with at least three review authors to consider alternative interpretations and ensure that fourth-order constructs remain grounded in the primary studies.

Step 3: Integration of qualitative and quantitative evidence. We will integrate the results of these two sources of evidence in the interpretation phase of results[55]. For findings informing outcomes, we will organise them according to the COMPAR-EU taxonomy (or to additional outcomes, if applicable)[39]. For emerging themes informing about feasibility and acceptability of SM interventions, we will develop a framework, according to the classification of analytical themes. The goal of the integration phase is to categorise the importance of outcomes and provide a framework to identify the factors that influence acceptability and feasibility of SM interventions, always from the perspectives of patients and their caregivers. We will present findings using tabular formats, which will inform the development of decision-making tools for the interactive platform of the COMPAR-EU project.

Sub-group analysis. For quantitative evidence and depending on the sufficiency of SRs, we plan to analyse the primary outcomes according to the patient population (e.g. age, the severity of the disease, number and types of chronic conditions, and type of respondent), intervention (e.g.,. type of SM intervention) and setting (e.g., country). For qualitative evidence, it is not possible to specify the groups in advance, due to the nature of this synthesis.

Sensitivity analysis. If applicable, we will conduct a sensitivity analysis exploring the impact of the quality of the included SRs (low, medium and high) in the final synthesis of findings.

Patient's and caregiver's involvement

After the integration of quantitative and qualitative findings, we will conduct an online survey with patients' and caregivers' representatives from each chronic condition. We will ask for their feedback on the draft of summaries of perspectives of patients and their caregivers derived from the SRs. We will design a tabular format for the seven subdomains of outcomes with close and open-ended questions assessing: 1) to what

extent the overview findings resound with their preferences and experiences; and 2) the relevance of findings for healthcare decision-making on SM interventions from their point of view.

For the recruitment of participants, we will invite patients' and caregivers' representatives through the patient's networks collaborating in the COMPAR-EU project. We aim to include at least five patients with different profiles of gender, age group, and severity of disease and one informal caregiver for each condition. After giving their informed consent, patients will receive the link to complete the survey. Their responses will be analysed based on frequencies, and thematic analysis for the open-ended questions. After discussion within the review working group, we will include their perspectives in the discussion section of each chronic condition manuscript.

Ethics and dissemination
Ethical approval was obtained by the Clinical Research Ethics Committee of the Avedis Donabedian Research Institute, the coordinator partner of the COMPAR-EU Project (EU 754936), the University Institute for Primary Care Research (IDIAP Jordi Gol) and was signed on March 2018. We will disseminate our findings as conference abstracts, peer-review manuscripts, and social community media. Patients' and caregivers' representatives participating in the draft summaries assessment will receive feedback based on their responses. Our results will inform the development of decision-making tools for the COMPAR-EU Project.

Study status
Since we planned to conduct the overviews of reviews for the four conditions consecutively, we are in different points on each one: 1) we conducted the searches in the selected databases and selected the initial list of included reviews for the four conditions on March 2019; 2) we finalised the extraction of the quantitative data of SRs reporting health utilities for the four conditions on September 2019, updated until November 2020; 3) we started the extraction of qualitative data, and thematic synthesis for reviews of T2DM on November 2019 and this process is still in progress; 4) in the upcoming months we will follow with obesity, HF and COPD. Finally, we plan to publish results also in a consecutive manner, one manuscript per condition, during the second semester of 2021 and the first of 2022.

Discussion
Our study will collect the perspectives of patients and their caregivers on SM interventions for four high priority chronic conditions. We will synthesise and integrate quantitative and qualitative findings describing how patients and their caregivers value the importance of outcomes of SM interventions, and the factors that might affect acceptability and feasibility of conducting these SM interventions, based on their preferences and experiences about SM, through the disease trajectory and with SM interventions.

To our knowledge, these will be the first overview of the perspectives of patients and their caregivers on SM interventions for any of these four chronic conditions using a mixed-methods approach[26]. We will follow the most updated methodological guidance for overviews[27–34].

Each overview will provide new knowledge in a summarised format about the perspectives of patients living with the four selected chronic conditions and their caregivers on SM interventions. This evidence will be readily available to inform decision-making tools (i.e. EtD frameworks and decisions aids) where, in addition to effectiveness and cost-effectiveness findings, the COMPAR-EU project will develop recommendations for SM interventions. More precisely, we will inform about the importance of outcomes of SM interventions, acceptability and feasibility considerations, through quantitative and qualitative data.

Although patients vary greatly in their preferences[10], this approach will help to identify subgroups of patients (and caregivers) that might find an acceptable risk-benefit balance for SM interventions. We will also inform about acceptability and feasibility considerations for implementation concerns of these interventions. Our findings will be incorporated into the COMPAR-EU Project final product: an interactive platform that will be designed and adapted to different profiles of end-users, including patients, caregivers, healthcare providers, policymakers, researchers and industry representatives.

Some limitations include that our findings will represent a sample of primary studies published in English already included in SRs. Because of time constraints, we do not plan to update them[32], so we may miss the most recent studies. Furthermore, we are not using a specific tool to assess the quality of reporting. Instead, we will describe this aspect as an overall assessment[32]. Finally, the overall assessment of the certainty of the evidence is out of our scope, since there is still scarce guidance on how to assess this aspect within an overview[32].

Our findings will help to characterise better the perspective of patients with chronic conditions and their caregivers on SM interventions, identifying challenges patients face in their daily life, which may inform and help healthcare providers to get a deeper understanding the patients' experiences and what is important for them. In this way, they will be able to provide support to patients that better fits their needs. For policy and decision-makers, being aware of the perspective of patients will help to design patient-centred strategies to implement SM interventions.

We expect our findings will provide valuable insights to be considered in the design and conduct of future studies of SM interventions for patients living with any of these or similar chronic conditions. These overviews will help to identify gaps in research in this field and areas of potentially redundant research, reducing waste and streamlining the use of limited resources.

Data availability
Underlying data
No underlying data are associated with this article.

Extended data

OSF: The perspectives of patients and their caregivers on self-management interventions for chronic conditions. https://doi.org/10.17605/OSF.IO/GFSA5[56]

Reporting guidelines

OSF: The perspectives of patients and their caregivers on self-management interventions for chronic conditions. https://doi.org/10.17605/OSF.IO/GFSA5[56].

References

1. Epping-Jordan JE, Pruitt SD, Bengoa R, *et al.*: **Improving the quality of health care for chronic conditions.** *Qual Saf Health Care.* 2004; **13**(4): 299–305.
   PubMed Abstract | **Publisher Full Text** | **Free Full Text**

2. Bodenheimer T, Lorig K, Holman H, *et al.*: **Patient self-management of chronic disease in primary care.** *JAMA.* 2002; **288**(19): 2469–75.
   PubMed Abstract | **Publisher Full Text**

3. Grady PA, Gough LL: **Self-management: a comprehensive approach to management of chronic conditions.** *Am J Public Health.* 2014; **104**(8): e25–31.
   PubMed Abstract | **Publisher Full Text** | **Free Full Text**

4. **Pilot project on the promotion of self-care systems in the European Union**. European Union; 2018.
   Reference Source

5. Craig P, Dieppe P, Macintyre S, *et al.*: **Developing and evaluating complex interventions: the new Medical Research Council guidance.** *BMJ.* 2008; **337**: a1655.
   PubMed Abstract | **Publisher Full Text** | **Free Full Text**

6. Taylor SJC, Pinnock H, Epiphaniou E, *et al.*: **A rapid synthesis of the evidence on interventions supporting self-management for people with long-term conditions: PRISMS - Practical systematic Review of Self-Management Support for long-term conditions**. *Health Serv Deliv.* Southampton (UK), 2014; **2**(53).
   PubMed Abstract | **Publisher Full Text**

7. Barlow J, Wright C, Sheasby J, *et al.*: **Self-management approaches for people with chronic conditions: a review.** *Patient Educ Couns.* 2002; **48**(2): 177–87.
   PubMed Abstract | **Publisher Full Text**

8. Murphy LA, Harrington P, Taylor SJ, *et al.*: **Clinical-effectiveness of self-management interventions in chronic obstructive pulmonary disease: An overview of reviews.** *Chron Respir Dis.* 2017; **14**(3): 276–88.
   PubMed Abstract | **Publisher Full Text** | **Free Full Text**

9. Andrews J, Guyatt G, Oxman AD, *et al.*: **GRADE guidelines: 14. Going from evidence to recommendations: the significance and presentation of recommendations.** *J Clin Epidemiol.* 2013; **66**(7): 719–25.
   PubMed Abstract | **Publisher Full Text**

10. Ho M, Saha A, McCleary KK, *et al.*: **A Framework for Incorporating Patient Preferences Regarding Benefits and Risks into Regulatory Assessment of Medical Technologies.** *Value Health.* 2016; **19**(6): 746–50.
    PubMed Abstract | **Publisher Full Text**

11. Schünemann HJ, Wiercioch W, Etxeandia I, *et al.*: **Guidelines 2.0: systematic development of a comprehensive checklist for a successful guideline enterprise.** *CMAJ.* 2014; **186**(3): E123–42.
    PubMed Abstract | **Publisher Full Text** | **Free Full Text**

12. Brennan PF, Strombom I: **Improving health care by understanding patient preferences: the role of computer technology.** *J Am Med Inform Assoc.* 1998; **5**(3): 257–62.
    PubMed Abstract | **Publisher Full Text** | **Free Full Text**

13. **FDA Guidance Patient Preference Information – Voluntary Submission, Review in Premarket Approval Applications, Humanitarian Device Exemption Applications, and *De Novo* Requests, and Inclusion in Decision Summaries and Device Labeling**. FDA; 2016.
    Reference Source

14. Zhang Y, Alonso-Coello P, Guyatt GH, *et al.*: **GRADE Guidelines: 19. Assessing the certainty of evidence in the importance of outcomes or values and preferences-Risk of bias and indirectness.** *J Clin Epidemiol.* 2019; **111**: 94–104.
    PubMed Abstract | **Publisher Full Text**

15. Alonso-Coello P, Oxman AD, Moberg J, *et al.*: **[GRADE Evidence to Decision (EtD) frameworks: a systematic and transparent approach to making well informed healthcare choices. 2: Clinical practice guidelines].** *Gac Sanit.* 2018; **32**(2): 167.e1–167.e10.
    PubMed Abstract | **Publisher Full Text**

16. Selva A, Sanabria AJ, Niño de Guzman E, *et al.*: **Colorectal cancer guidelines seldom include the patient perspective.** *J Clin Epidemiol.* 2019; **116**: 84–97.
    PubMed Abstract | **Publisher Full Text**

17. Selva A, Sanabria AJ, Pequeño S, *et al.*: **Incorporating patients' views in guideline development: a systematic review of guidance documents.** *J Clin Epidemiol.* 2017; **88**: 102–12.
    PubMed Abstract | **Publisher Full Text**

18. Zhang Y, Coello PA, Brożek J, *et al.*: **Using patient values and preferences to inform the importance of health outcomes in practice guideline development following the GRADE approach.** *Health Qual Life Outcomes.* 2017; **15**(1): 52.
    PubMed Abstract | **Publisher Full Text** | **Free Full Text**

19. Hunink MGM, Weinstein MC, Wittenberg E, *et al.*: **Decision Making in Health and Medicine: Integrating Evidence and Values**. 2nd ed. Cambridge: Cambridge University Press; 2014.
    Reference Source

20. Niño de Guzmán EP, Martínez-García L, Pérez-Bracchiglione J, *et al.*: **What do patients and their caregivers value on self-management interventions for chronic conditions? A scoping review of systematic reviews for the COMPAR-EU project**. Cochrane Colloquium. 2019.
    Reference Source

21. Dwarswaard J, Bakker EJ, van Staa A, *et al.*: **Self-management support from the perspective of patients with a chronic condition: a thematic synthesis of qualitative studies.** *Health Expect.* 2016; **19**(2): 194–208.
    PubMed Abstract | **Publisher Full Text** | **Free Full Text**

22. Earle CC, Chapman RH, Baker CS, *et al.*: **Systematic overview of cost-utility assessments in oncology.** *J Clin Oncol.* 2000; **18**(18): 3302–17.
    PubMed Abstract | **Publisher Full Text**

23. May CR, Cummings A, Myall M, *et al.*: **Experiences of long-term life-limiting conditions among patients and carers: what can we learn from a meta-review of systematic reviews of qualitative studies of chronic heart failure, chronic obstructive pulmonary disease and chronic kidney disease?** *BMJ Open.* 2016; **6**(10): e011694.
    PubMed Abstract | **Publisher Full Text** | **Free Full Text**

24. Pearce G, Pinnock H, Epiphaniou E, *et al.*: **Experiences of Self-Management Support Following a Stroke: A Meta-Review of Qualitative Systematic Reviews.** *PLoS One.* 2015; **10**(12): e0141803.
    PubMed Abstract | **Publisher Full Text** | **Free Full Text**

25. Toye F, Seers K, Hannink E, *et al.*: **A mega-ethnography of eleven qualitative evidence syntheses exploring the experience of living with chronic non-malignant pain.** *BMC Med Res Methodol.* 2017; **17**(1): 116.
    PubMed Abstract | **Publisher Full Text** | **Free Full Text**

26. Pluye P, Hong QN: **Combining the power of stories and the power of numbers: mixed methods research and mixed studies reviews.** *Annu Rev Public Health.* 2014; **35**: 29–45.
    PubMed Abstract | **Publisher Full Text**

27. Harris JL, Booth A, Cargo M, *et al.*: **Cochrane Qualitative and Implementation Methods Group guidance series-paper 2: methods for question formulation, searching, and protocol development for qualitative evidence synthesis.** *J Clin Epidemiol.* 2018; **97**: 39–48.
    PubMed Abstract | **Publisher Full Text**

28. Noyes J, Booth A, Cargo M, *et al.*: **Cochrane Qualitative and Implementation Methods Group guidance series-paper 1: introduction.** *J Clin Epidemiol.* 2018; **97**: 35–8.
    PubMed Abstract | **Publisher Full Text**

29. Pollock MFR, Becker LA, Pieper D, *et al.*: **Overviews of Reviews.** In: *Cochrane Handbook for Systematic reviews of Interventions*. 2019.
    Reference Source

30. Aromataris E, Fernandez R, Godfrey CM, *et al.*: **Summarizing systematic reviews: methodological development, conduct and reporting of an umbrella review approach.** *Int J Evid Based Healthc.* 2015; **13**(3): 132–40.
    PubMed Abstract | **Publisher Full Text**

31. Hunt H, Pollock A, Campbell P, *et al.*: **An introduction to overviews of reviews: planning a relevant research question and objective for an overview.** *Syst Rev.* 2018; **7**(1): 39.
    PubMed Abstract | **Publisher Full Text** | **Free Full Text**

32. Lunny C, Brennan SE, McDonald S, *et al.*: **Toward a comprehensive evidence

map of overview of systematic review methods: paper 2-risk of bias assessment; synthesis, presentation and summary of the findings; and assessment of the certainty of the evidence. *Syst Rev.* 2018; **7**(1): 159.
PubMed Abstract | **Publisher Full Text** | **Free Full Text**

33. Lunny C, Brennan SE, McDonald S, *et al.*: **Toward a comprehensive evidence map of overview of systematic review methods: paper 1-purpose, eligibility, search and data extraction.** *Syst Rev.* 2017; **6**(1): 231.
PubMed Abstract | **Publisher Full Text** | **Free Full Text**

34. Lunny C, Brennan SE, McDonald S, *et al.*: **Evidence map of studies evaluating methods for conducting, interpreting and reporting overviews of systematic reviews of interventions: rationale and design.** *Syst Rev.* 2016; **5**: 4.
PubMed Abstract | **Publisher Full Text** | **Free Full Text**

35. Moher D, Shamseer L, Clarke M, *et al.*: **Preferred reporting items for systematic review and meta-analysis protocols (PRISMA-P) 2015 statement.** *Syst Rev.* 2015; **4**: 1.
PubMed Abstract | **Publisher Full Text** | **Free Full Text**

36. Barnett-Page E, Thomas J: **Methods for the synthesis of qualitative research: a critical review.** *BMC Med Res Methodol.* 2009; **9**: 59.
PubMed Abstract | **Publisher Full Text** | **Free Full Text**

37. Reinhard SC, Given B, Petlick NH, *et al.*: **Supporting Family Caregivers in Providing Care.** In: *Patient Safety and Quality: An Evidence-Based Handbook for Nurses.* Rockville Agency for Healthcare Research and Quality (US). 2008.
Reference Source

38. Tattersall RL: **The expert patient: a new approach to chronic disease management for the twenty-first century.** *Clin Med (Lond).* 2002; **2**(3): 227–9.
PubMed Abstract | **Publisher Full Text** | **Free Full Text**

39. Orrego C, Ballester M, Pacheco-Barrios K, *et al.*: **Development and external validation of a comprehensive Taxonomy of Self-Management Interventions in chronic conditions: the COMPAR-EU taxonomy.** G-I-N & JBI Conference; October/November 2019; Adelaide, Australia. 2019.
Reference Source

40. Torrance GW: **Utility approach to measuring health-related quality of life.** *J Chronic Dis.* 1987; **40**(6): 593–603.
PubMed Abstract | **Publisher Full Text**

41. Hartman JD, Craig BM: **Comparing and transforming PROMIS utility values to the EQ-5D.** *Qual Life Res.* 2018; **27**(3): 725–33.
PubMed Abstract | **Publisher Full Text**

42. Selva A, Solà I, Zhang Y, *et al.*: **Development and use of a content search strategy for retrieving studies on patients' views and preferences.** *Health Qual Life Outcomes.* 2017; **15**(1): 126.
PubMed Abstract | **Publisher Full Text** | **Free Full Text**

43. Greenhalgh T, Peacock R: **Effectiveness and efficiency of search methods in systematic reviews of complex evidence: audit of primary sources.** *BMJ.* 2005; **331**(7524): 1064–5.
PubMed Abstract | **Publisher Full Text** | **Free Full Text**

44. **NVivo qualitative data analysis software**. Version 12 ed: QSR International Pty Ltd. 2018.

45. Becker L, Oxman A: **Overviews of reviews.** In: *Handbook for Systematic Reviews of Interventions.* London: The Cochrane Collaboration. Version 5.1.0. 2008.
Publisher Full Text

46. Thomas JH, Newman M: **Synthesis: Combining results systematically and appropriately.** In: Gough D, Oliver S, Thomas J, editor. *An Introduction to Systematic Reviews.* London: Sage Publications Ltd. 2012.179–227.
Reference Source

47. Pieper D, Antoine SL, Neugebauer EA, *et al.*: **Up-to-dateness of reviews is often neglected in overviews: a systematic review.** *J Clin Epidemiol.* 2014; **67**(12): 1302–8.
PubMed Abstract | **Publisher Full Text**

48. Pieper D, Antoine SL, Mathes T, *et al.*: **Systematic review finds overlapping reviews were not mentioned in every other overview.** *J Clin Epidemiol.* 2014; **67**(4): 368–75.
PubMed Abstract | **Publisher Full Text**

49. Cooper H, Koenka AC: **The overview of reviews: unique challenges and opportunities when research syntheses are the principal elements of new integrative scholarship.** *Am Psychol.* 2012; **67**(6): 446–62.
PubMed Abstract | **Publisher Full Text**

50. Jadczak AD, Makwana N, Luscombe-Marsh N, *et al.*: **Effectiveness of exercise interventions on physical function in community-dwelling frail older people: an umbrella review of systematic reviews.** *JBI Database System Rev Implement Rep.* 2018; **16**(3): 752–75.
PubMed Abstract | **Publisher Full Text**

51. Hong QN, Pluye P, Bujold M, *et al.*: **Convergent and sequential synthesis designs: implications for conducting and reporting systematic reviews of qualitative and quantitative evidence.** *Syst Rev.* 2017; **6**(1): 61.
PubMed Abstract | **Publisher Full Text** | **Free Full Text**

52. Rodgers M, Sowden A, Petticrew M, *et al.*: **Testing Methodological Guidance on the Conduct of Narrative Synthesis in Systematic Reviews: Effectiveness of Interventions to Promote Smoke Alarm Ownership and Function.** *Evaluation.* 2009; **15**(1): 49–73.
Publisher Full Text

53. StataCorp: **Stata Statistical Software.** Release 14 ed. College Station, TX: StataCorp LP. 2015.

54. Campbell R, Pound P, Morgan M, *et al.*: **Evaluating meta-ethnography: systematic analysis and synthesis of qualitative research.** *Health Technol Assess.* 2011; **15**(43): 1–164.
PubMed Abstract | **Publisher Full Text**

55. Caffery LJ, Martin-Khan M, Wade V: **Mixed methods for telehealth research.** *J Telemed Telecare.* 2017; **23**(9): 764–9.
PubMed Abstract | **Publisher Full Text**

56. Niño de Guzmán E: **The Perspectives of Patients and Their Caregivers on Self-Management Interventions for Chronic Conditions.** 21st November ed. OSF. 2019.
http://www.doi.org/10.17605/OSF.IO/GFSA5

Open Peer Review

Current Peer Review Status: ✓ ✓

Version 2

Reviewer Report 01 December 2021

https://doi.org/10.5256/f1000research.79074.r101464

✓ **Edward Zimbudzi** [iD]

Monash Centre for Health Research and Implementation, Monash University, Melbourne, Australia

The authors have addressed my comments.

Competing Interests: No competing interests were disclosed.

Reviewer Expertise: Chronic kidney disease; self-management; patient activation; health related quality of life; dialysis

I confirm that I have read this submission and believe that I have an appropriate level of expertise to confirm that it is of an acceptable scientific standard.

Version 1

Reviewer Report 02 June 2021

https://doi.org/10.5256/f1000research.24400.r84691

? **Edward Zimbudzi** [iD]

Monash Centre for Health Research and Implementation, Monash University, Melbourne, Australia

In this protocol, the authors seek to identify, appraise and synthesise evidence regarding patients' and caregivers' perspectives on self-management interventions. To do this, the authors will conduct four mixed-methods overviews specific to patients with chronic obstructive pulmonary

disease (COPD), heart failure (HF), obesity and type 2 diabetes mellitus. Appropriate databases will be searched for systematic reviews that meet preidentified criteria followed by well described data extraction and analysis process.

Here are my comments/remarks that require clarification;

- The authors may need to make it clear from the onset that they will include patients with <u>only one</u> of the four conditions (if that is the case). It is important to clarify this because a number of patients have more than one condition.

- In line with the point above, patients may also have a chronic condition of interest plus other chronic diseases which are not part of this study. Are they going to be excluded?

- The stage of the disease does affect how patients self-manage as well as outcomes. Authors may need to provide a rationale regarding why they are not considering the stage of the disease as a variable.

Is the rationale for, and objectives of, the study clearly described?
Yes

Is the study design appropriate for the research question?
Yes

Are sufficient details of the methods provided to allow replication by others?
Yes

Are the datasets clearly presented in a useable and accessible format?
Not applicable

Competing Interests: No competing interests were disclosed.

Reviewer Expertise: Chronic kidney disease; self-management; patient activation; health related quality of life; dialysis

I confirm that I have read this submission and believe that I have an appropriate level of expertise to confirm that it is of an acceptable scientific standard, however I have significant reservations, as outlined above.

Author Response 02 Nov 2021

Ena Niño de Guzman, Iberoamerican Cochrane Centre, Sant Pau Biomedical Research Institute (IIB-Sant Pau), Barcelona, Spain

Eligibility criteria
We will include SRs that included studies in patients with chronic conditions of interest (COPD, HF, obesity and T2DM) and without restricting by 1) disease severity, 2) the number of conditions of interest (e.g., > 1 of the chronic conditions of interest), or 3) the number of chronic conditions (e.g., $\geq \geq 1$ of the chronic conditions of interest plus $\geq \geq 1$ of other

chronic conditions, except cancer or severe mental disorders). We will collect and analyse data considering these criteria if data is available.

We will collect and analyse data considering disease severity and the number and types of chronic conditions if data is available. If SRs included more than one of the chronic conditions of interest, we will collect and analyse data of each condition in the corresponding overview.

We have modified the text in the "Methods and analysis - Eligibility criteria - Population/perspectives" section to clarify the reviewer's concern. The text reads: "We will limit inclusion to SRs of studies conducted in adult patients (18 or older) with one or more of the chronic conditions of interest (COPD, HF, obesity and T2DM), without restricting by the severity of the disease. We will consider SRs assessing multiple chronic conditions (e.g., patients with more than one of the chronic conditions of interest or patients with chronic conditions of interest plus other chronic conditions). We will exclude SRs focused on patients with the chronic conditions of interest and cancer comorbidity or severe mental disorders."

We have modified the text in the "Methods and analysis - Data synthesis and reporting - Sub-group analysis" section to clarify the reviewer's concern. The text reads: "For quantitative evidence and depending on the sufficiency of SRs, we plan to analyse the primary outcomes according to the patient population (e.g., age, the severity of the disease, number and types of chronic conditions, and type of respondent), intervention (e.g., type of SM intervention) and setting (e.g., country)".

Competing Interests: No conflicts of interest

Reviewer Report 24 August 2020

✔ **Milena Vainieri**
Management and Health Laboratory, Sant'Anna School of Advanced Studies of Pisa, Pisa, Italy

The article presents the study protocol for a systematic review of the reviews dealing with 4 main chronic diseases.

The methods that this group of authors intend to apply are innovative and comprehensive.

The only minor suggestions regard the language proofreading (for instance see the use of connects as a noun) and if the authors expect to publish a review per disease or a unique

comprehensive review also comparing the 4 (potentially overlapping) diseases.

Is the rationale for, and objectives of, the study clearly described?
Yes

Is the study design appropriate for the research question?
Yes

Are sufficient details of the methods provided to allow replication by others?
Yes

Are the datasets clearly presented in a useable and accessible format?
Not applicable

Competing Interests: No competing interests were disclosed.

Reviewer Expertise: Health service research, healthcare management

I confirm that I have read this submission and believe that I have an appropriate level of expertise to confirm that it is of an acceptable scientific standard.

Author Response 02 Nov 2021
Ena Niño de Guzman, Iberoamerican Cochrane Centre, Sant Pau Biomedical Research Institute (IIB-Sant Pau), Barcelona, Spain

Comment 1: Language proofreading and publication plan
Response 1
We have reviewed English grammar correctness and made some minor edits. We plan to publish one overview per disease. We have modified the text in the " Study status" section to clarify the reviewer's concern. The text reads: "… Finally, we plan to publish results also in a consecutive manner, one manuscript per condition, during the second semester of 2021 and the first of 2022."

Competing Interests: No conflicts of interest

The benefits of publishing with F1000Research:

- Your article is published within days, with no editorial bias

- You can publish traditional articles, null/negative results, case reports, data notes and more

- The peer review process is transparent and collaborative

- Your article is indexed in PubMed after passing peer review

- Dedicated customer support at every stage

For pre-submission enquiries, contact research@f1000.com